

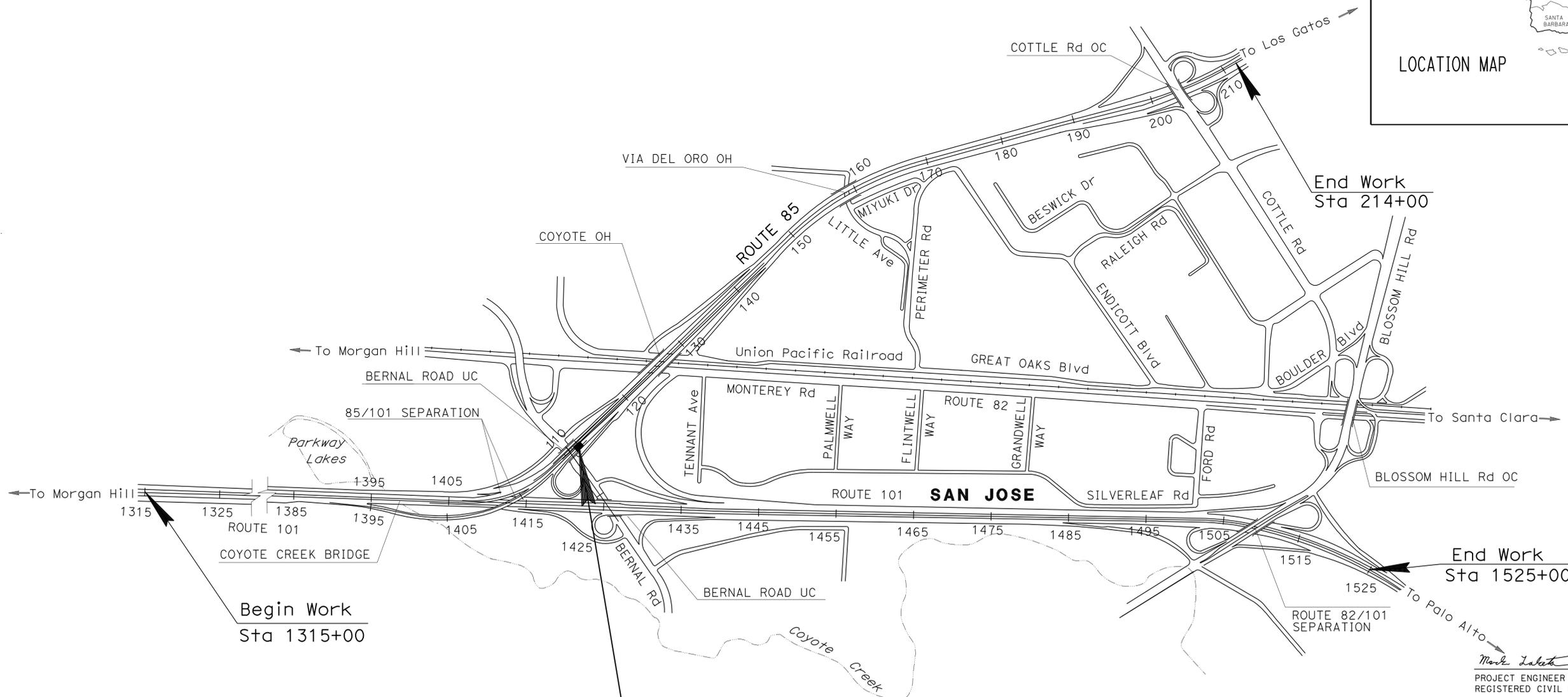
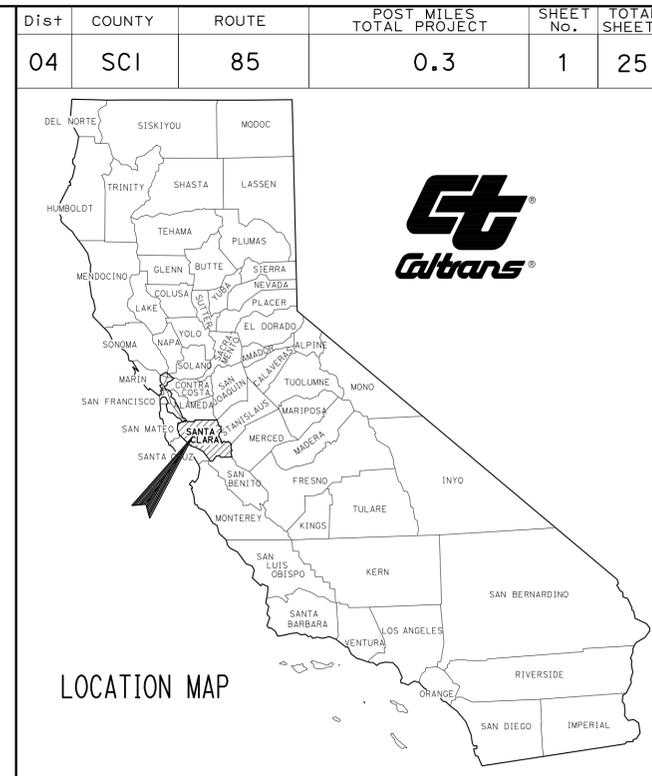
INDEX OF PLANS

SHEET No.	DESCRIPTION
1	TITLE AND LOCATION MAP
2	TYPICAL CROSS SECTIONS
3	LAYOUTS
4	PROFILES
5-6	CONSTRUCTION DETAILS
7	UTILITY PLAN
8	CONSTRUCTION AREA SIGNS, PAVEMENT DELINEATION DETAILS AND QUANTITIES
9-10	DETOUR PLANS
11	SUMMARY OF QUANTITIES
12-25	REVISED AND NEW STANDARD PLANS

THE STANDARD PLANS LIST APPLICABLE TO THIS CONTRACT IS INCLUDED IN THE NOTICE TO BIDDERS AND SPECIAL PROVISIONS BOOK.

STATE OF CALIFORNIA  
**DEPARTMENT OF TRANSPORTATION**  
**PROJECT PLANS FOR CONSTRUCTION ON**  
**STATE HIGHWAY**  
**IN SANTA CLARA COUNTY**  
**IN SAN JOSE**  
**AT BERNAL ROAD UNDERCROSSING**

TO BE SUPPLEMENTED BY STANDARD PLANS DATED MAY 2006



**LOCATION OF CONSTRUCTION**

**Sta 112+00 "A" PM 0.3**

NO SCALE

PROJECT ENGINEER  
 REGISTERED CIVIL ENGINEER  
 DATE 09-09-11



November 7, 2011  
 PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

CONTRACT No.	<b>04-4S0604</b>
PROJECT ID	<b>0400001203</b>

PROJECT MANAGER  
 DINA EL-TAWANSY  
 DESIGN ENGINEER  
 GETACHEW ESHETE

THE CONTRACTOR SHALL POSSESS THE CLASS (OR CLASSES) OF LICENSE AS SPECIFIED IN THE "NOTICE TO BIDDERS."



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	85	0.3	3	25

Mark Taketa 09-09-11  
 REGISTERED CIVIL ENGINEER DATE  
 11-7-11  
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER  
 MARK I. TAKETA  
 No. C64391  
 Exp. 6-30-13  
 CIVIL  
 STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

**NOTES:**

- FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
- SEE SHEET C-1 FOR THE LOCATION OF SOIL DENSIFICATION WITH POLYURETHANE MATERIAL.

**LEGEND:**

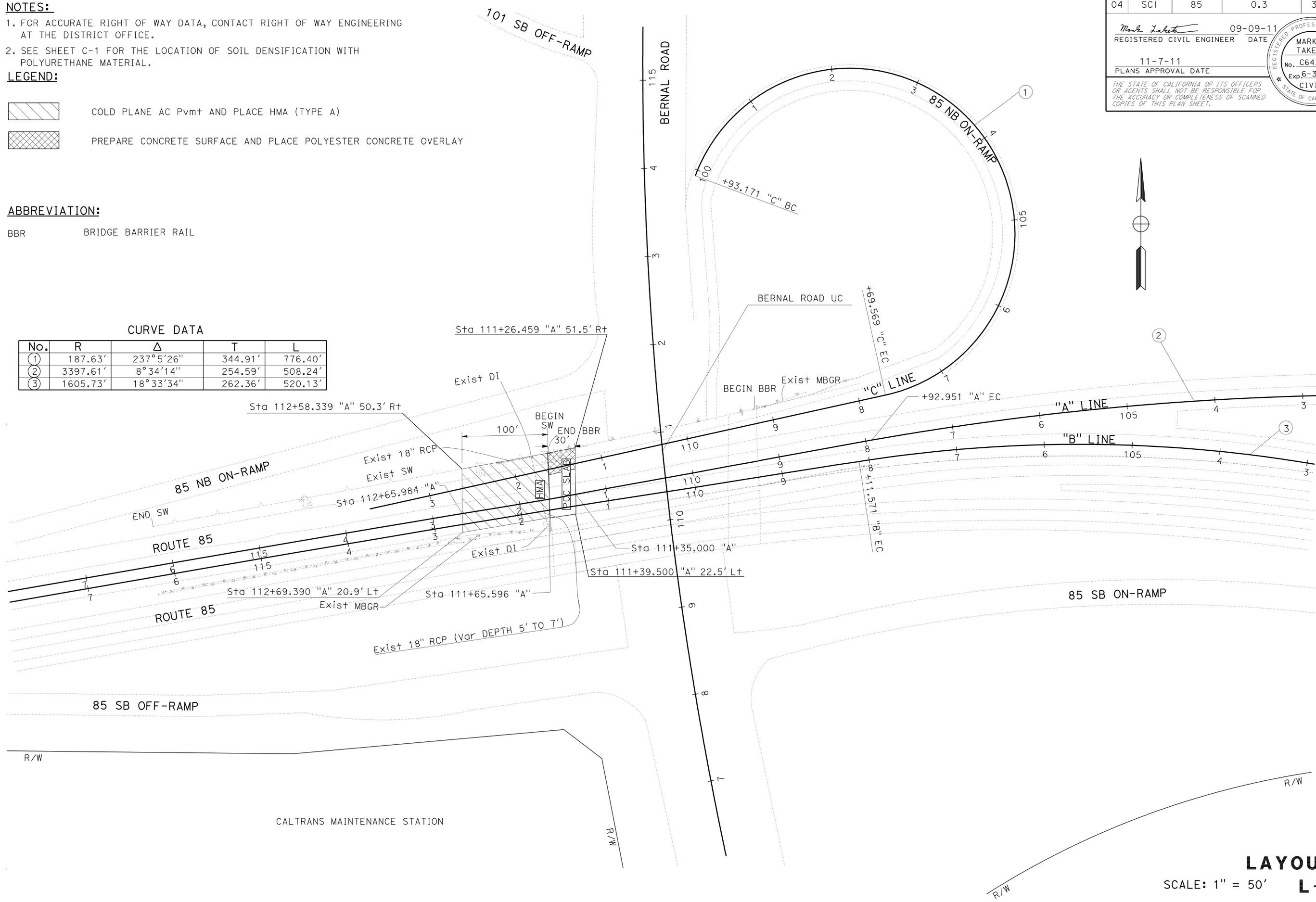
-  COLD PLANE AC Pvm+ AND PLACE HMA (TYPE A)
-  PREPARE CONCRETE SURFACE AND PLACE POLYESTER CONCRETE OVERLAY

**ABBREVIATION:**

BBR BRIDGE BARRIER RAIL

**CURVE DATA**

No.	R	Δ	T	L
①	187.63'	237°5'26"	344.91'	776.40'
②	3397.61'	8°34'14"	254.59'	508.24'
③	1605.73'	18°33'34"	262.36'	520.13'



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
 06-DESIGN  
 FUNCTIONAL SUPERVISOR: GETACHEW ESHETE  
 CALCULATED/DESIGNED BY: [blank]  
 CHECKED BY: [blank]  
 RAJINDER S BRAR: MARK TAKETA  
 REVISED BY: [blank] DATE REVISED: [blank]  
 PKD: 01/11

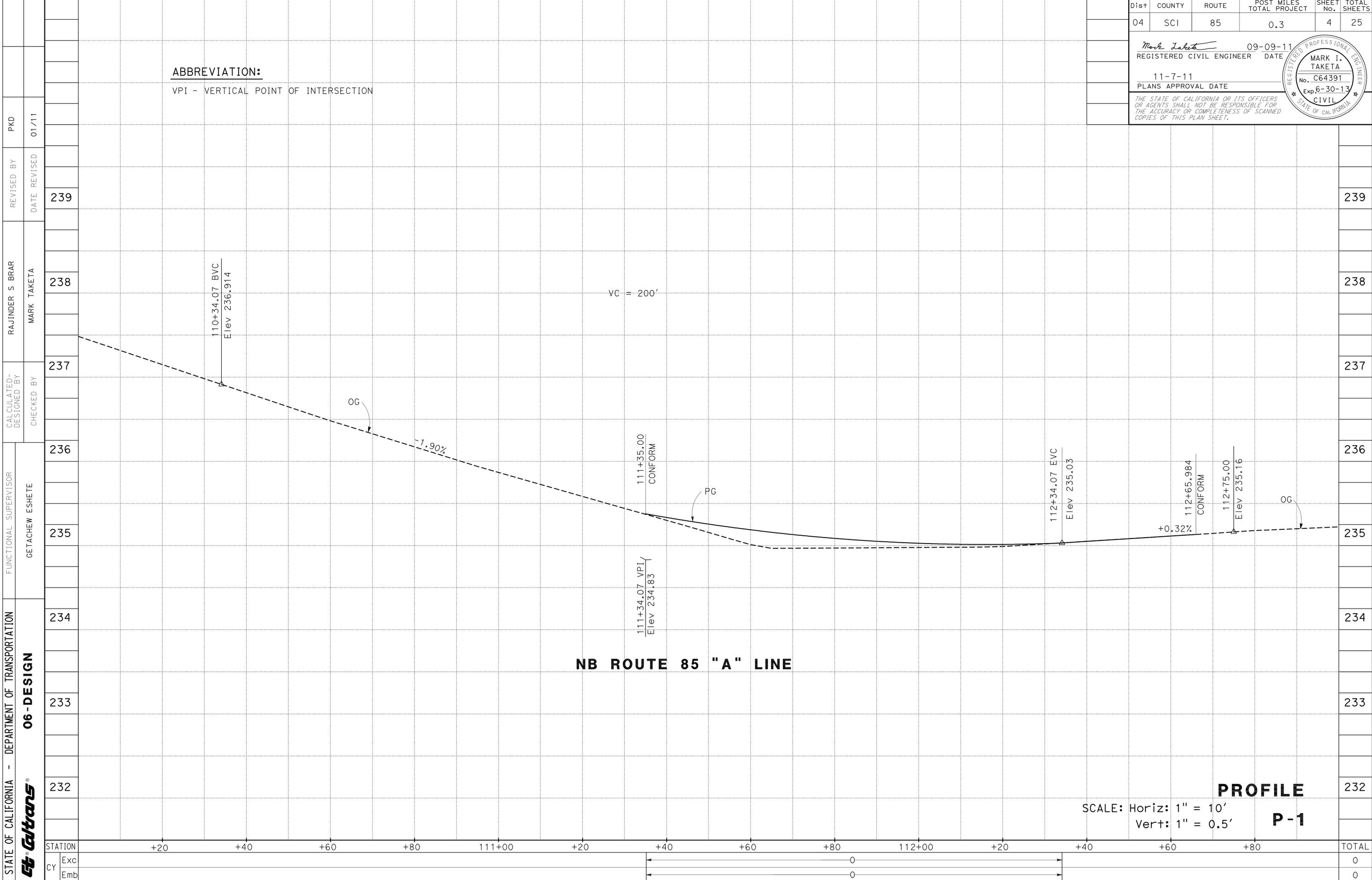
**LAYOUT**  
SCALE: 1" = 50' L-1

LAST REVISION: 09-09-11    DATE PLOTTED => 10-NOV-2011    TIME PLOTTED => 07:00

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	85	0.3	4	25
<i>Mark Taketa</i> REGISTERED CIVIL ENGINEER			09-09-11	DATE	
11-7-11 PLANS APPROVAL DATE					
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					



**ABBREVIATION:**  
 VPI - VERTICAL POINT OF INTERSECTION



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION <b>Caltrans</b>	06 - DESIGN
	06 - DESIGN
FUNCTIONAL SUPERVISOR GETACHEW ESHETE	234
CALCULATED / DESIGNED BY	235
CHECKED BY	236
RAJINDER S BRAR	237
MARK TAKETA	238
REVISOR	239
PKD	01/11

STATION	+20	+40	+60	+80	111+00	+20	+40	+60	+80	112+00	+20	+40	+60	+80	TOTAL
Exc															0
Emb															0

LAST REVISION: 09-09-11 DATE PLOTTED => 10-NOV-2011 TIME PLOTTED => 07:08

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	85	0.3	5	25

Mark Taketa	09-09-11
REGISTERED CIVIL ENGINEER	DATE
11-7-11	
PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER
MARK I. TAKETA
No. C64391
Exp. 6-30-13
CIVIL

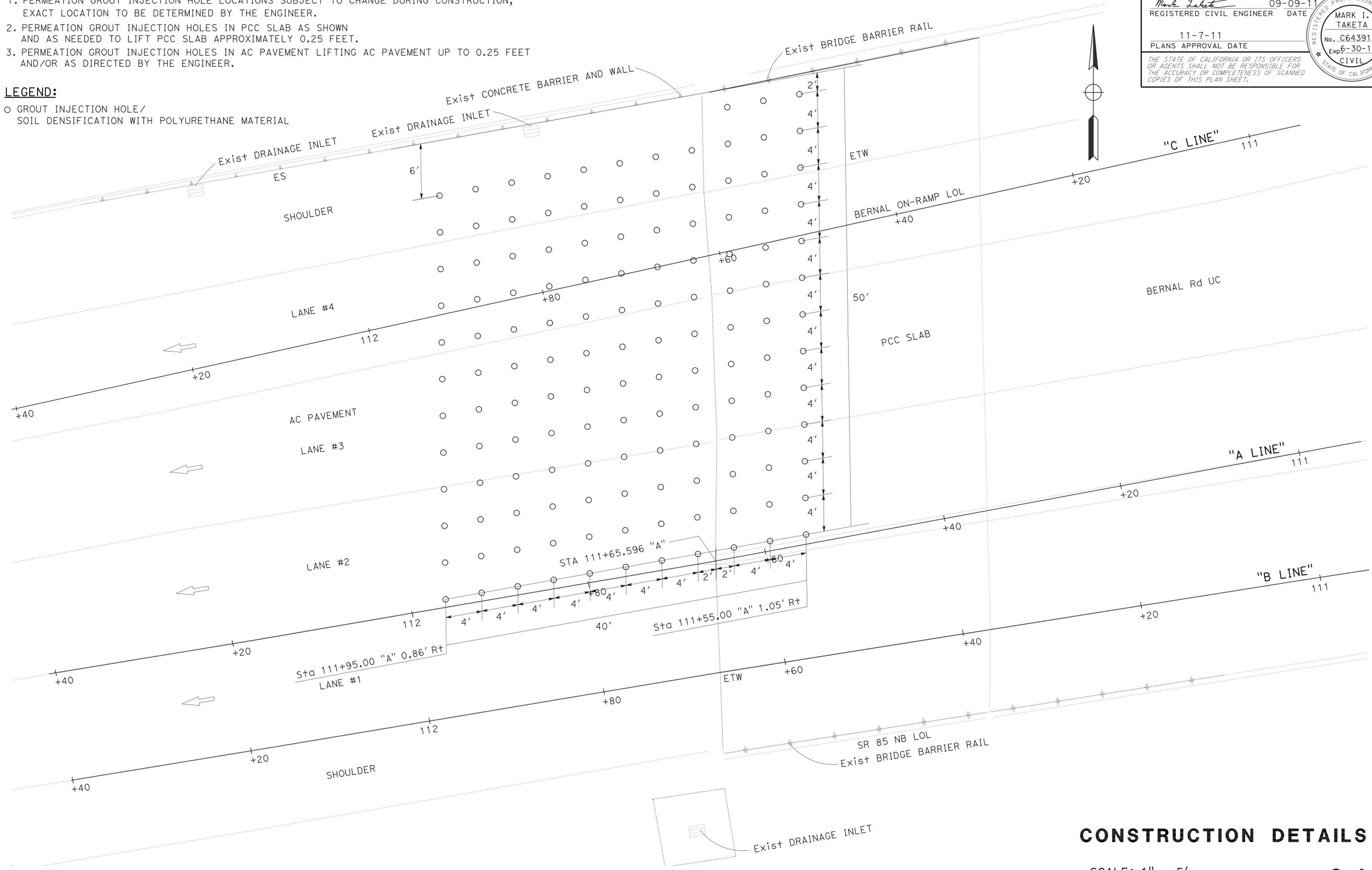
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

**NOTES:**

- PERMEATION GROUT INJECTION HOLE LOCATIONS SUBJECT TO CHANGE DURING CONSTRUCTION, EXACT LOCATION TO BE DETERMINED BY THE ENGINEER.
- PERMEATION GROUT INJECTION HOLES IN PCC SLAB AS SHOWN AND AS NEEDED TO LIFT PCC SLAB APPROXIMATELY 0.25 FEET.
- PERMEATION GROUT INJECTION HOLES IN AC PAVEMENT LIFTING AC PAVEMENT UP TO 0.25 FEET AND/OR AS DIRECTED BY THE ENGINEER.

**LEGEND:**

○ GROUT INJECTION HOLE/  
SOIL DENSIFICATION WITH POLYURETHANE MATERIAL



**CONSTRUCTION DETAILS**

SCALE: 1" = 5'

**C-1**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
<b>Caltrans</b>
D6-DESIGN
FUNCTIONAL SUPERVISOR
GETACHEW ESHETE
CALCULATED/DESIGNED BY
CHECKED BY
RAJINDER S BRAR
MARK TAKETA
REVISOR
DATE

USERNAME => s114926  
DGN FILE => 445060ga001.dgn

RELATIVE BORDER SCALE IS IN INCHES

UNIT 1475

PROJECT NUMBER & PHASE

04000012031

LAST REVISION DATE PLOTTED => 10-NOV-2011  
09-09-11 TIME PLOTTED => 07:09

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	85	0.3	6	25

<i>Mark Taketa</i>	09-09-11
REGISTERED CIVIL ENGINEER	DATE
11-7-11	
PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER
MARK I. TAKETA
No. C64391
Exp. 6-30-13
CIVIL

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

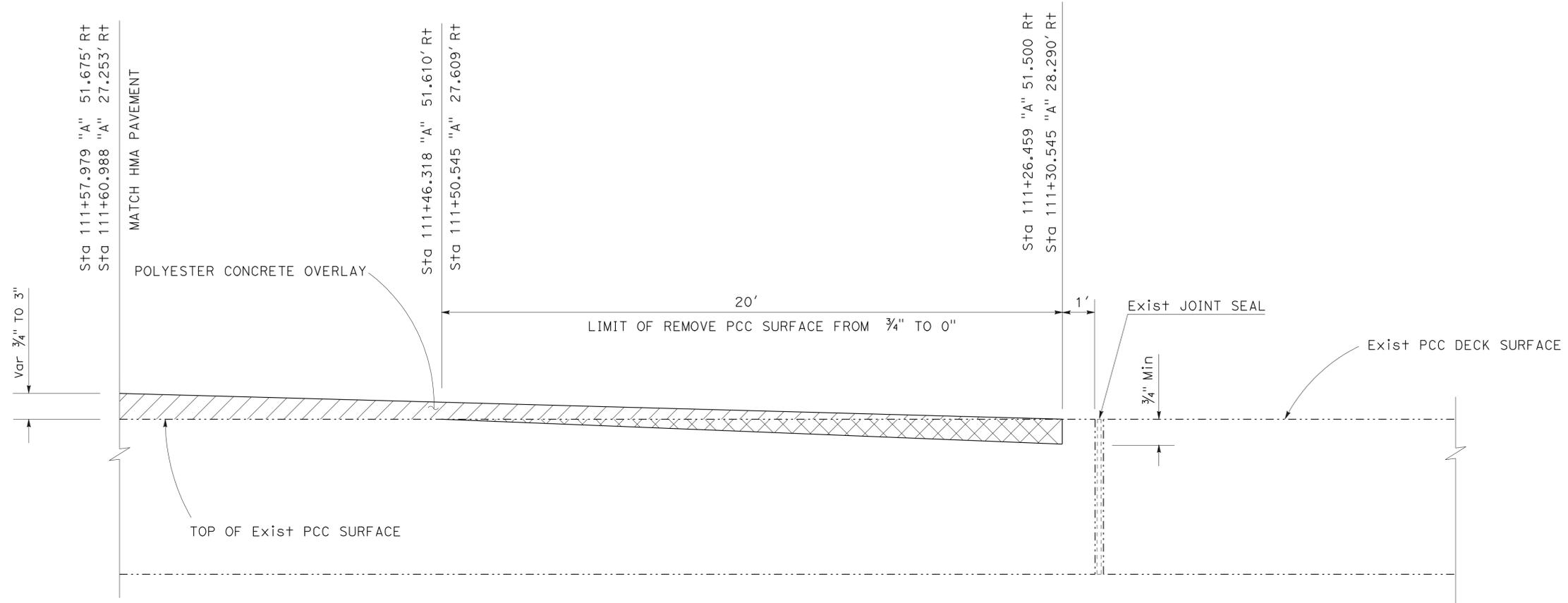
**LEGEND:**



PAVEMENT TRANSITION TAPER, PREPARE CONCRETE SURFACE, AND PLACE POLYESTER CONCRETE OVERLAY



PREPARE CONCRETE SURFACE AND PLACE POLYESTER CONCRETE OVERLAY



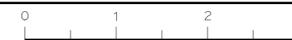
**APPROACH SLAB SURFACE REMOVAL DETAIL**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	RAJINDER S BRAR	REVISOR	
<b>Caltrans</b>	MARK TAKETA	DATE	
06-DESIGN			
FUNCTIONAL SUPERVISOR			
GETACHEW ESHETE			
CALCULATED/DESIGNED BY			
CHECKED BY			

**CONSTRUCTION DETAILS**

NO SCALE

**C-2**



DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	85	0.3	7	25

Mark Taketa 09-09-11  
 REGISTERED CIVIL ENGINEER DATE  
 11-7-11  
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER  
 MARK I. TAKETA  
 No. C64391  
 Exp. 6-30-17  
 CIVIL  
 STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

**NOTE:**

1. SEE SHEET C-1 FOR THE LOCATION OF SOIL DENSIFICATION WITH POLYURETHANE MATERIAL.

**LEGEND:**

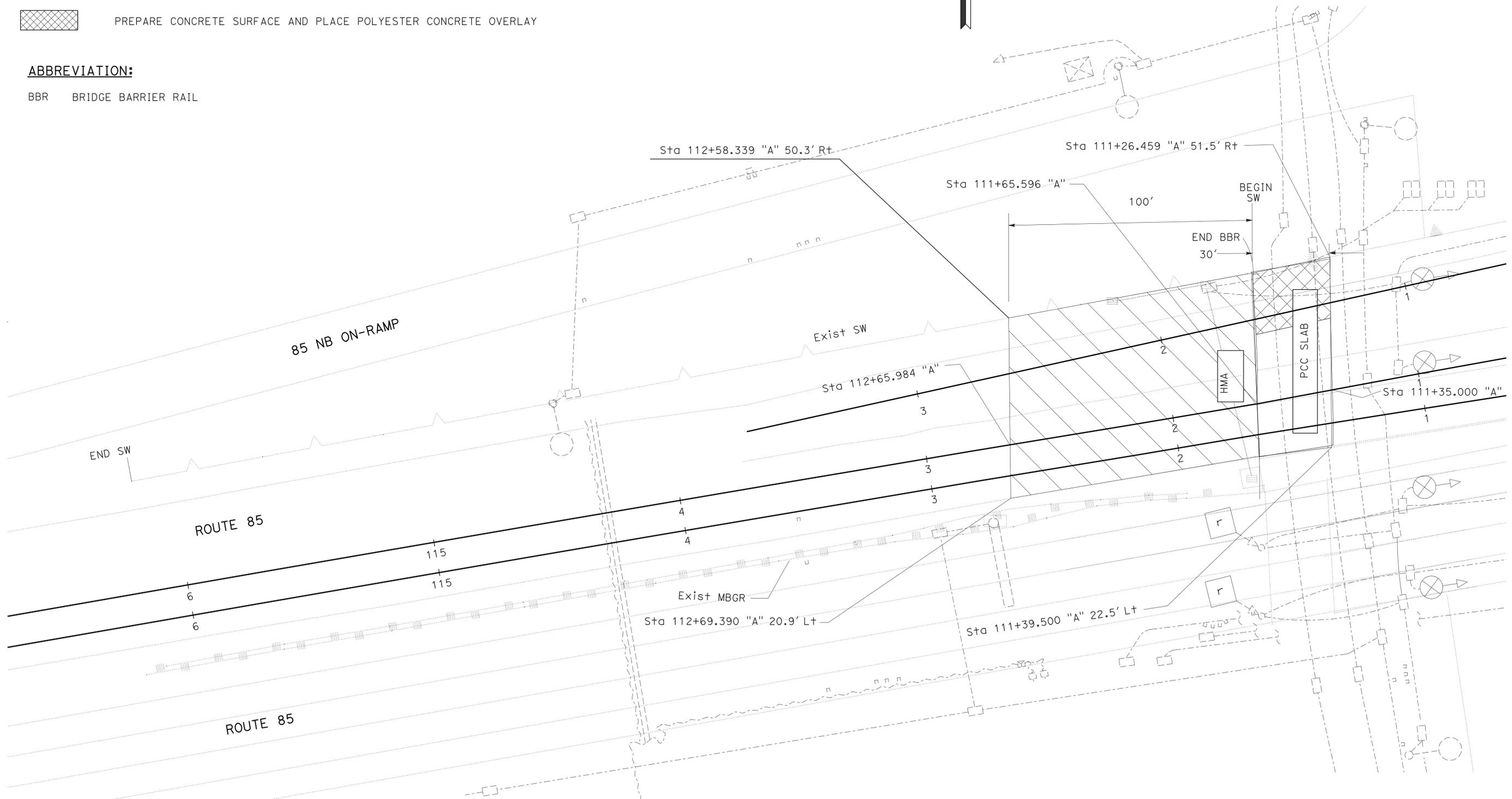
-  COLD PLANE AC Pvm+ AND PLACE HMA (TYPE A)
-  PREPARE CONCRETE SURFACE AND PLACE POLYESTER CONCRETE OVERLAY

**ABBREVIATION:**

BBR BRIDGE BARRIER RAIL



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
 06 - DESIGN  
 GETACHEW ESHETE  
 FUNCTIONAL SUPERVISOR  
 RAJINDER S BRAR  
 MARK TAKETA  
 CALCULATED/DESIGNED BY  
 CHECKED BY  
 REVISOR BY  
 DATE REVISED  
 MIT  
 09/11



APPROVED FOR UTILITY INFORMATION ONLY

**UTILITY PLAN**  
**U-1**  
SCALE: 1" = 20'

LAST REVISION DATE PLOTTED => 10-NOV-2011  
 09-09-11 TIME PLOTTED => 07:20

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	85	0.3	8	25

Hassan Cohe 09-09-11  
 REGISTERED CIVIL ENGINEER DATE  
 11-7-11  
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER  
 HASSAN M. TAHA  
 No. 60130  
 Exp. 06/30/12  
 CIVIL  
 STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

### PAVEMENT DELINEATION QUANTITIES

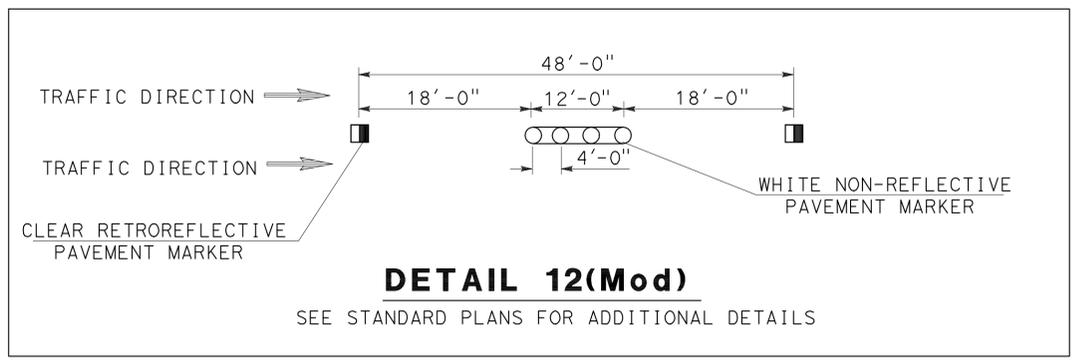
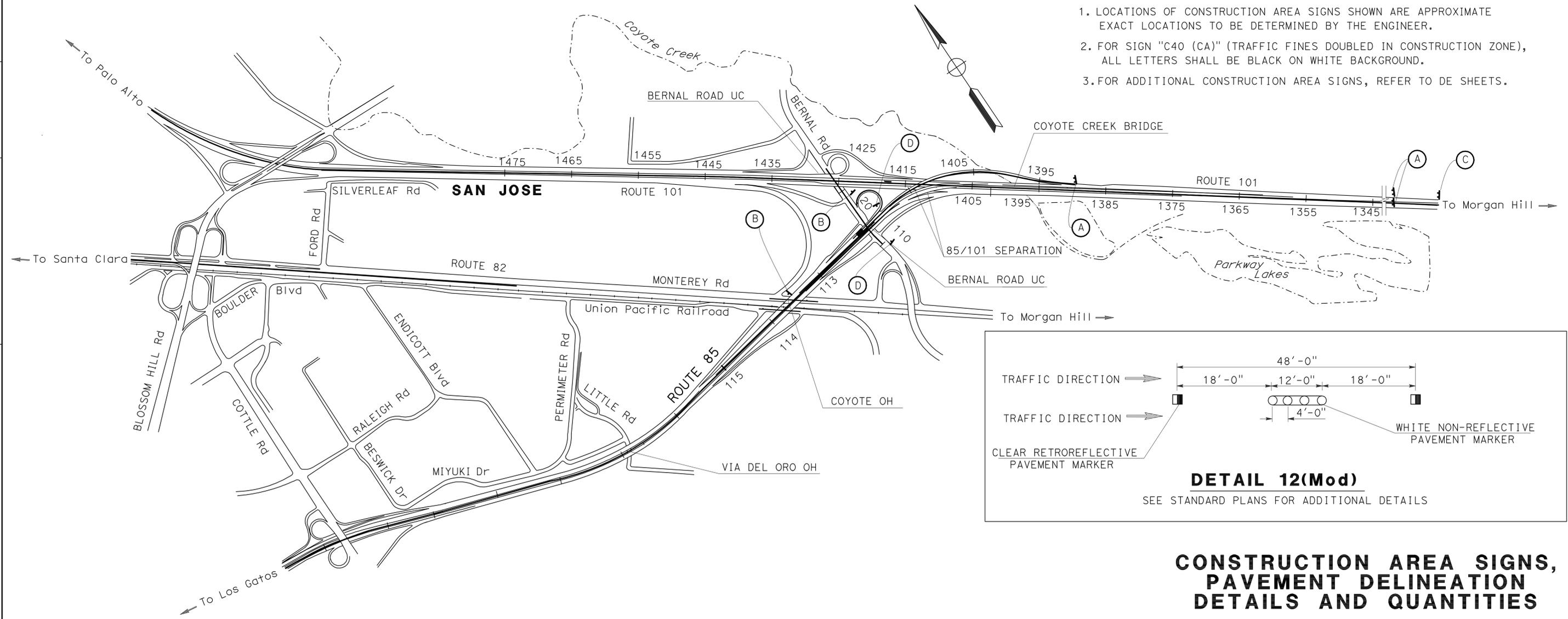
LOCATION	DIRECTION	DETAIL No.	PAVEMENT MARKER			THERMOPLASTIC TRAFFIC STRIPE		THERMOPLASTIC PAVEMENT MARKING		
			(RETRORE FLECTIVE)		(NON- REFLECTIVE)	4" SOLID	4" (BROKEN 36'-12')	DESCRIPTION	SQ FT	
			TYPE G	TYPE H	TYPE A					
			EA	EA	EA	LF	LF			
FROM Sta 111+35 TO Sta 112+65	NB	25		4			130			
FROM Sta 111+35 TO Sta 112+65	NB	12 (Mod)	4		12			130	DIAMOND	11
FROM Sta 111+35 TO Sta 112+65	NB	12 (Mod)	4		12			130		
FROM Sta 111+35 TO Sta 112+65	NB	12 (Mod)	4		12			130		
FROM Sta 111+35 TO Sta 112+65	NB	12 (Mod)	4		12			130		
FROM Sta 111+35 TO Sta 112+65	NB	27B					130			
SUBTOTAL			16	4	48		260	520		11
TOTAL				20	48		260	520		11

### STATIONARY MOUNTED CONSTRUCTION AREA SIGNS

SIGN No.	SIGN CODE	SIGN MESSAGE	PANEL SIZE	No. OF POST AND SIZE	No. OF SIGNS
(A)	W20-1	ROAD WORK AHEAD	60" x 60"	2 - 4" x 6"	3
(B)	G20-2	END ROAD WORK	48" x 24"	1 - 4" x 6"	2
(C)	C40(CA)	TRAFFIC FINES DOUBLED IN CONSTRUCTION ZONES	144" x 60"	2 - 6" x 6"	1
(D)	W20-1	ROAD WORK AHEAD	48" x 48"	1 - 6" x 6"	2

#### NOTES:

- LOCATIONS OF CONSTRUCTION AREA SIGNS SHOWN ARE APPROXIMATE EXACT LOCATIONS TO BE DETERMINED BY THE ENGINEER.
- FOR SIGN "C40 (CA)" (TRAFFIC FINES DOUBLED IN CONSTRUCTION ZONE), ALL LETTERS SHALL BE BLACK ON WHITE BACKGROUND.
- FOR ADDITIONAL CONSTRUCTION AREA SIGNS, REFER TO DE SHEETS.



## CONSTRUCTION AREA SIGNS, PAVEMENT DELINEATION DETAILS AND QUANTITIES

NO SCALE

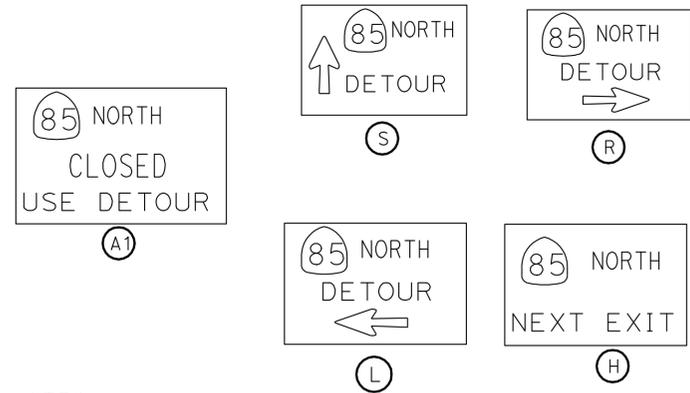
CS-1

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
 06-TRAFFIC DESIGN  
 FUNCTIONAL SUPERVISOR: MOHAMMED QATAMI  
 CALCULATED/DESIGNED BY: MUNIR ASSAF  
 CHECKED BY: HASSAN TAHA  
 REVISED BY: DATE REVISED:

**CONSTRUCTION AREA SIGNS (PORTABLE)**

	SIGN CODE	PANEL SIZE	SIGN MESSAGE	No. OF POST AND SIZE	No. OF SIGNS
(A1)	SC8(CA) (Mod)	84" x 54"	85 NORTH, CLOSED, USE DETOUR	PORTABLE	1
(S)	SC8(CA) (Mod)	72" x 48"	85 DETOUR W/ ARROW	PORTABLE	9
(R)	SC8(R+)(CA) (Mod)	72" x 48"	85 DETOUR W/ ARROW	PORTABLE	8
(L)	SC8(L+)(CA) (Mod)	72" x 48"	85 DETOUR W/ ARROW	PORTABLE	2
(H)	SC8(CA) (Mod)	72" x 48"	85 NORTH NEXT EXIT	PORTABLE	2
(E)	M4-8a	24" x 18"	END DETOUR	PORTABLE	1



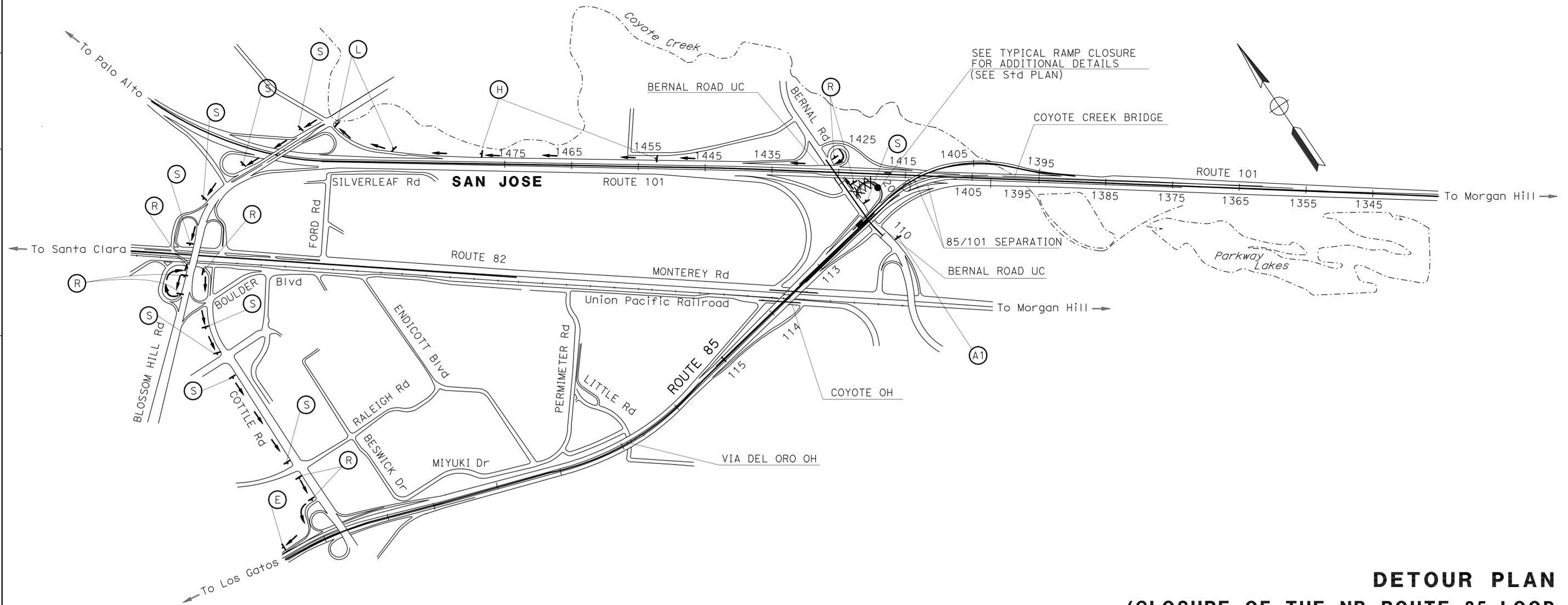
- NOTES:**
- SIGN PANELS: BLACK ON ORANGE.
  - LETTERING: USE CALTRANS ALPHABET, SERIES C FOR LETTERING.
  - DETOUR VIA NB BERNAL Rd; LOOP ON-RAMP TO NB Rte 101; NB Rte 101; OFF-RAMP TO BLOSSOM HILL Rd; WB BLOSSOM HILL Rd; LOOP OFF RAMP TO COTTLE Rd; SB COTTLE Rd TO ON-RAMP TO NB Rte 85.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	85	0.3	9	25

Hassan M. Taaha 09-09-11  
 REGISTERED CIVIL ENGINEER DATE  
 11-7-11  
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER  
 HASSAN M. TAHA  
 No. 60130  
 Exp. 06/30/12  
 CIVIL  
 STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



**DETOUR PLAN**  
**(CLOSURE OF THE NB ROUTE 85 LOOP ON-RAMP FROM NB BERNAL ROAD)**  
 NO SCALE  
**DE-1**

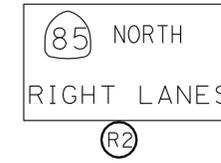
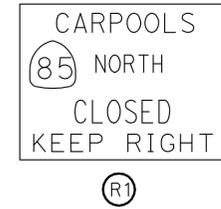
APPROVED FOR DETOUR WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
 06-TRAFFIC DESIGN  
 Caltrans

LAST REVISION DATE PLOTTED => 10-NOV-2011 09-09-11 TIME PLOTTED => 07:20

**CONSTRUCTION AREA SIGNS (PORTABLE)**

SIGN CODE	PANEL SIZE	SIGN MESSAGE	No. OF POST AND SIZE	No. OF SIGNS
(R1) SC8(CA) (MOD)	84" x 54"	85 NORTH, CARPOOLS CLOSED, KEEP RIGHT	PORTABLE	3
(R2) SC8(CA) (MOD)	72" x 48"	85 NORTH RIGHT LANES	PORTABLE	3



**NOTES:**

1. SIGN PANELS: BLACK ON ORANGE.
2. LETTERING: USE CALTRANS ALPHABET, SERIES C FOR LETTERING.
3. DETOUR VIA NB Rte 101 CONNECTOR OFF-RAMP TO NB RTE 85.

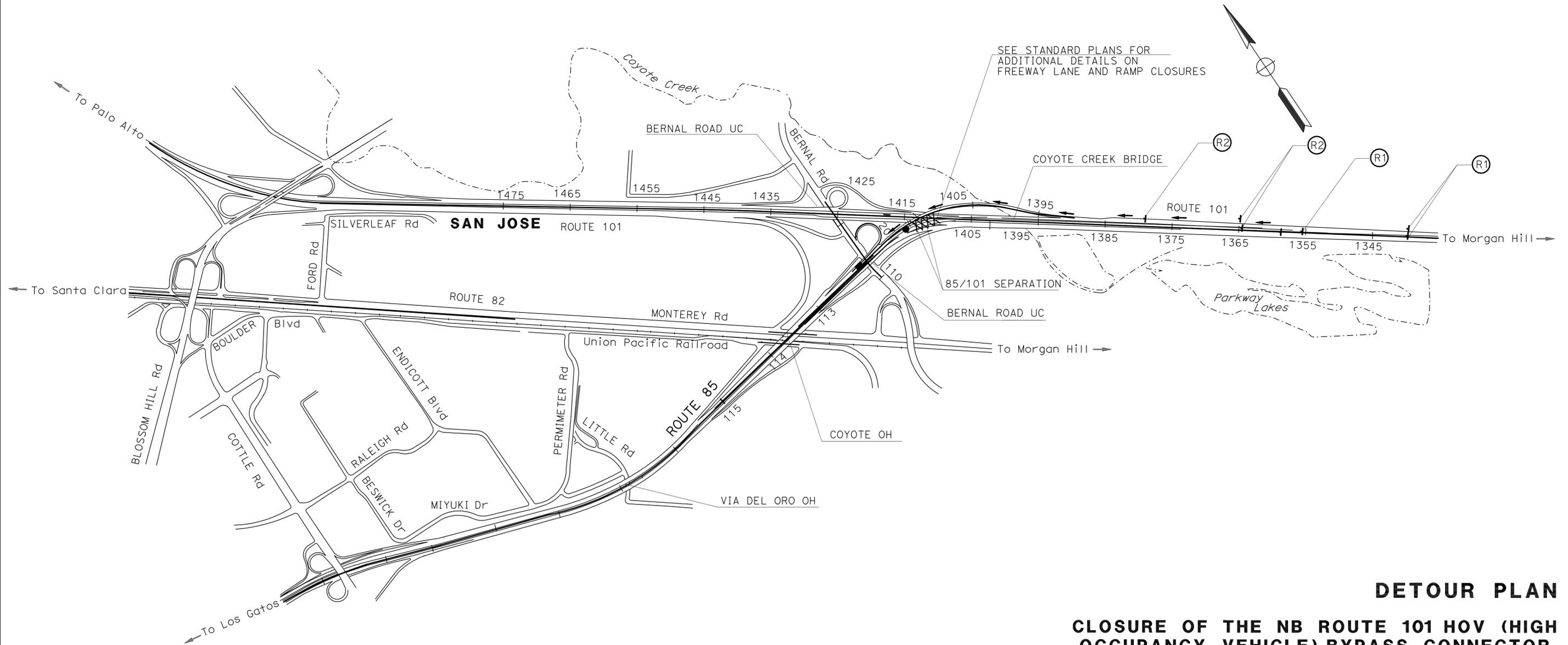
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	85	0.3	10	25

Hassan Cohe 09-09-11  
 REGISTERED CIVIL ENGINEER DATE

11-7-11  
 PLANS APPROVAL DATE

HASSAN M. TAHA  
 No. 60130  
 Exp. 06/30/12  
 CIVIL

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



**DETOUR PLAN**  
**CLOSURE OF THE NB ROUTE 101 HOV (HIGH OCCUPANCY VEHICLE) BYPASS CONNECTOR OFF-RAMP TO NB ROUTE 85**

**DE-2**

APPROVED FOR DETOUR WORK ONLY

NO SCALE

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	85	0.3	11	25

*Mark Taketa* 09-09-11  
 REGISTERED CIVIL ENGINEER DATE  
 11-7-11  
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER  
**MARK I. TAKETA**  
 No. C64391  
 Exp. 6-30-13  
 CIVIL  
 STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

### COLD PLANE AC PAVEMENT

ROUTE	LIMITS *		UNIT	QUANTITY
	FROM	TO		
MAINLINE Rte 85 NB	Sta 111+65.596 "A"	Sta 112+65.984 "A"	SQYD	830

\* EXACT LOCATION TO BE DETERMINED BY THE ENGINEER

### POLYESTER CONCRETE OVERLAY

ITEM DESCRIPTION	LIMITS *	UNIT	QUANTITY
FURNISH POLYESTER CONCRETE OVERLAY	Sta 111+26.459"A" 51.500' R+ TO Sta 111+57.979"A" 51.675' R+ Sta 111+30.545"A" 28.290' R+ TO Sta 111+60.988"A" 27.253' R+	CF	180
PLACE POLYESTER CONCRETE OVERLAY	Sta 111+26.459"A" 51.500' R+ TO Sta 111+57.979"A" 51.675' R+ Sta 111+30.545"A" 28.290' R+ TO Sta 111+60.988"A" 27.253' R+	SQFT	720

\* EXACT LOCATION TO BE DETERMINED BY THE ENGINEER

### PREPARE CONCRETE SURFACE

LIMITS *	UNIT	QUANTITY
Sta 111+26.459"A" 51.500' R+ TO Sta 111+57.979"A" 51.675' R+ Sta 111+30.545"A" 28.290' R+ TO Sta 111+60.988"A" 27.253' R+	SQFT	720

\* EXACT LOCATION TO BE DETERMINED BY THE ENGINEER

### PAVEMENT TRANSITION TAPER

LIMITS *	UNIT	QUANTITY
Sta 111+26.459"A" 51.500' R+ TO Sta 111+46.318"A" 51.610' R+ Sta 111+30.545"A" 28.290' R+ TO Sta 111+50.545"A" 27.609 R+	SQYD	54

\* EXACT LOCATION TO BE DETERMINED BY THE ENGINEER

### HOT MIX ASPHALT

ROUTE	LIMITS *		HMA (TYPE A)	TACK COAT
	FROM	TO	TON	TON
MAINLINE Rte 85 NB	Sta 111+65.596 "A"	Sta 112+65.984 "A"	140.00	0.14

\* EXACT LOCATION TO BE DETERMINED BY THE ENGINEER.

### SOIL DENSIFICATION WITH POLYURETHANE MATERIAL

ITEM DESCRIPTION	LIMITS *	No. OF HOLES	VOLUME (N) PER HOLE	DENSITY (N)	QUANTITY
		(N)	CF	LB/CF	LB
POLYURETHANE MATERIAL TO LIFT AC AREA	SEE CONSTRUCTION DETAILS C-1	96	4.375	3	1260
POLYURETHANE MATERIAL TO LIFT PCC AREA	SEE CONSTRUCTION DETAILS C-1	39	7.863	3	920
TOTAL					2180

\* EXACT LOCATION TO BE DETERMINED BY THE ENGINEER  
 (N) - NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY.

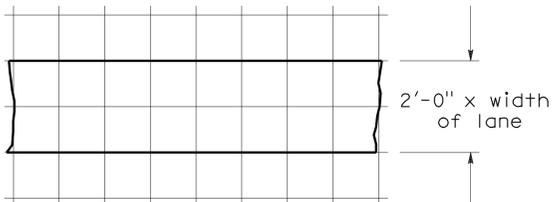
## SUMMARY OF QUANTITIES

Q-1

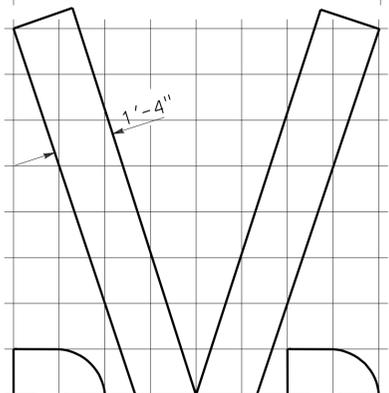
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
 06-DESIGN  
 FUNCTIONAL SUPERVISOR  
 GETACHEW ESHETE  
 CALCULATED/DESIGNED BY  
 CHECKED BY  
 RAJINDER S BRAR  
 MARK TAKETA  
 REVISED BY  
 DATE REVISED  
 PKD  
 01/11



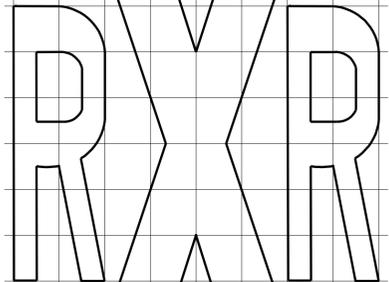
To accompany plans dated 11-7-11



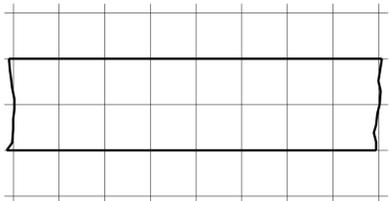
8'-0"



6'-0"



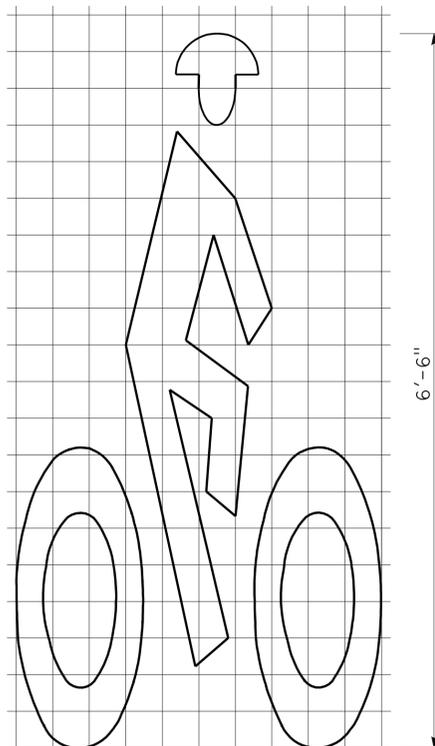
14'-0"



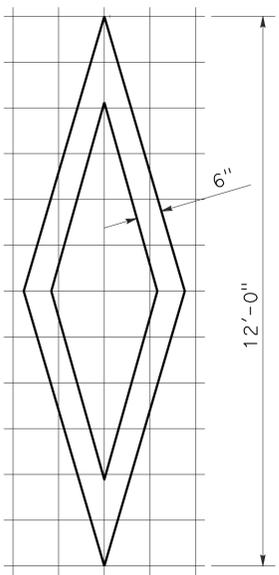
1'-0" GRID  
A=70 sq ft \*

**RAILROAD CROSSING SYMBOL**

\*70 sq ft DOES NOT INCLUDE THE 2'-0" x VARIABLE WIDTH TRANSVERSE LINES.

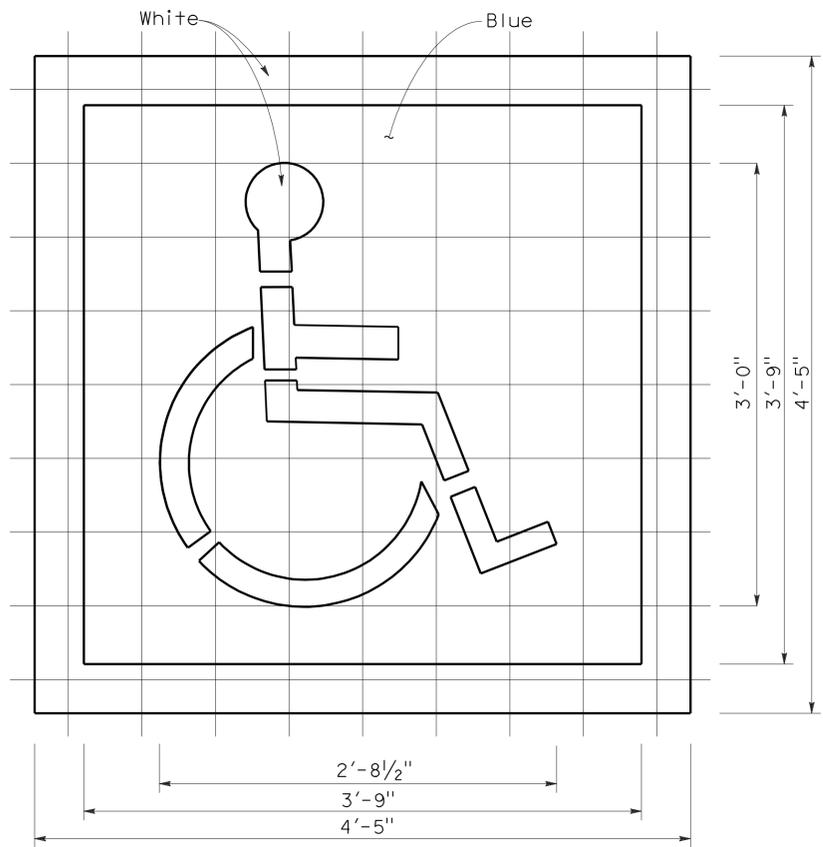


**BIKE LANE SYMBOL**



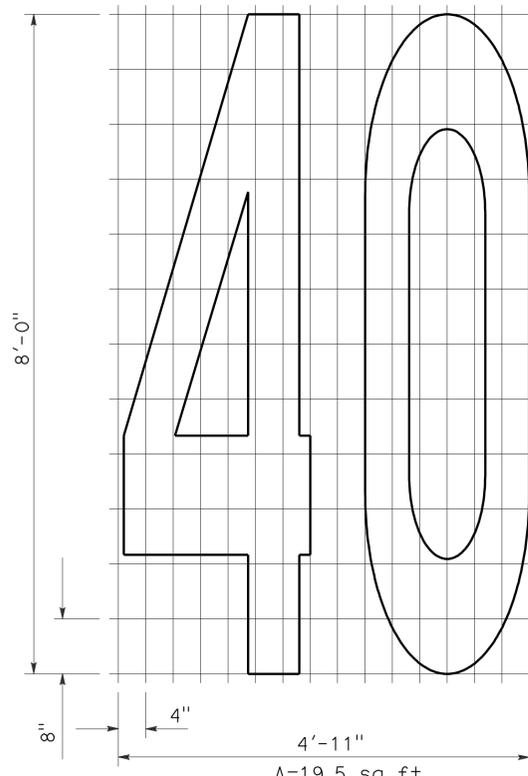
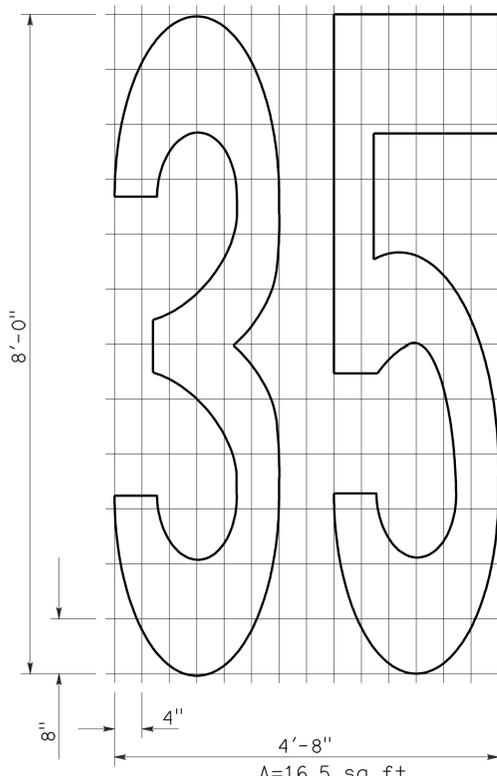
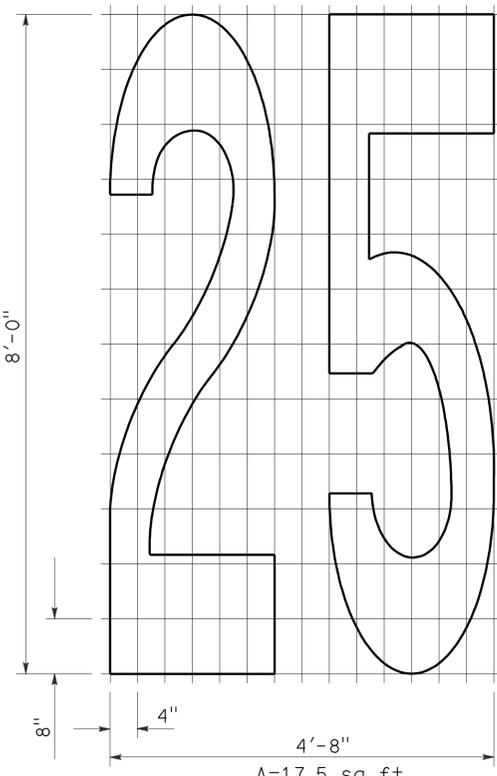
**DIAMOND SYMBOL**

A=11 sq ft

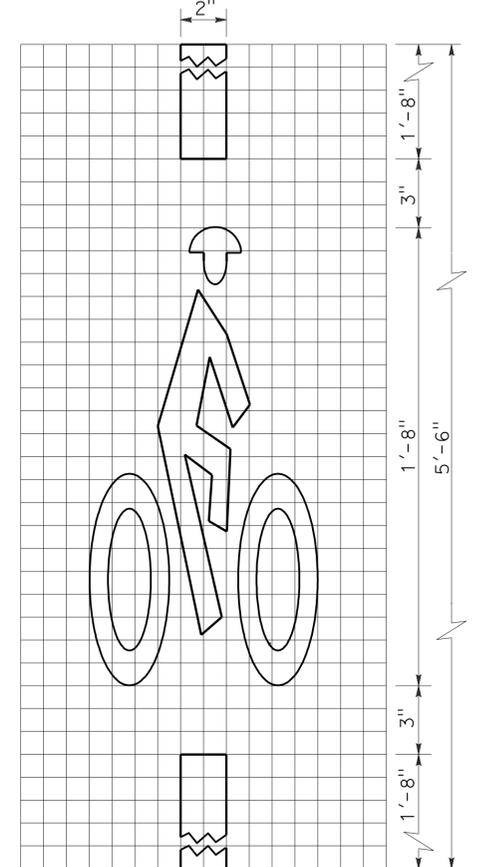


**INTERNATIONAL SYMBOL OF ACCESSIBILITY MARKING**

6" GRID  
A (White) = 9 sq ft  
A (Blue) = 14 sq ft



**NUMERALS**



**BICYCLE LOOP DETECTOR SYMBOL**

**NOTE:**  
1. Minor variations in dimensions may be accepted by the Engineer.

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION  
**PAVEMENT MARKINGS SYMBOLS AND NUMERALS**

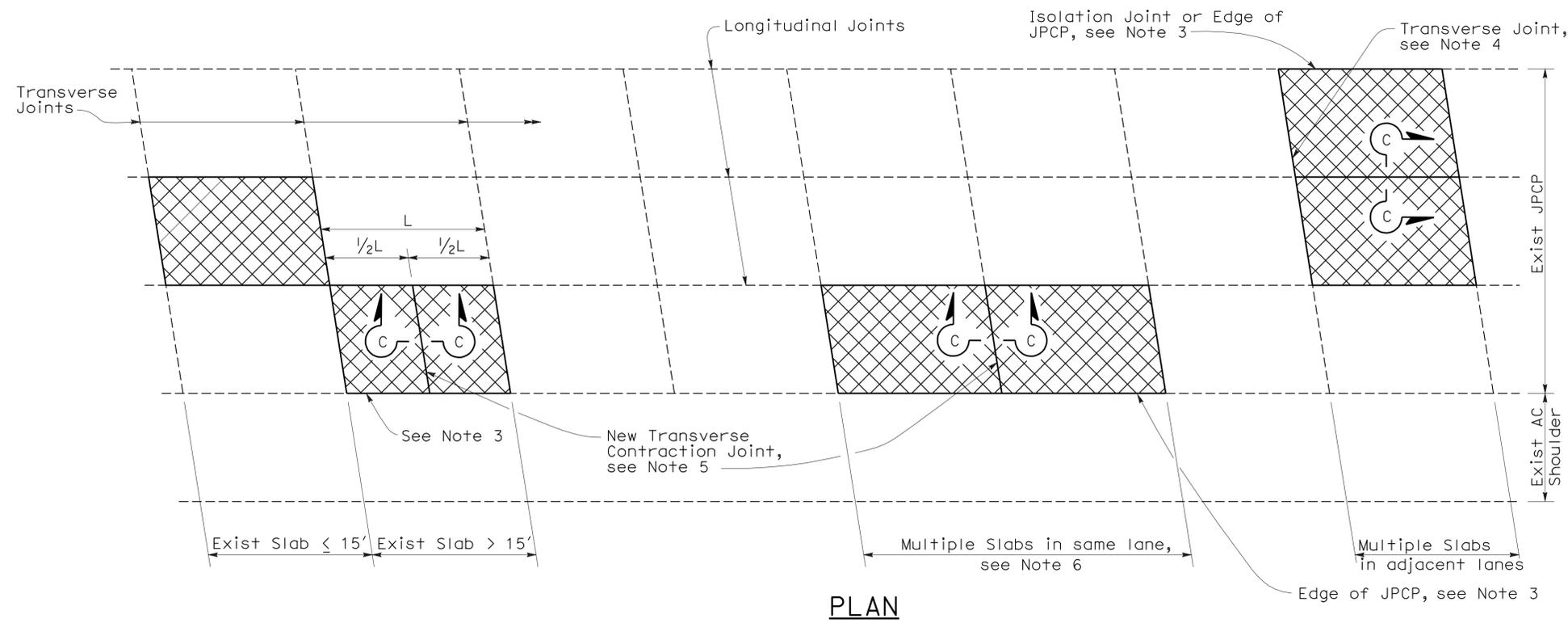
NO SCALE

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SCI	85	0.3	13	25

William K. Farnbach  
 REGISTERED CIVIL ENGINEER  
 May 15, 2009  
 PLANS APPROVAL DATE  
 No. C49042  
 Exp. 9-30-10  
 CIVIL  
 STATE OF CALIFORNIA

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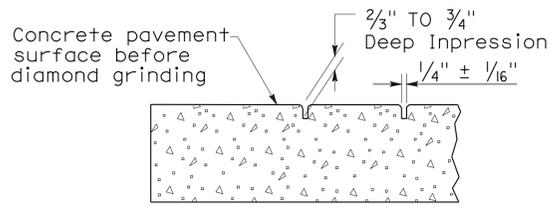
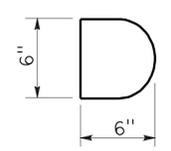
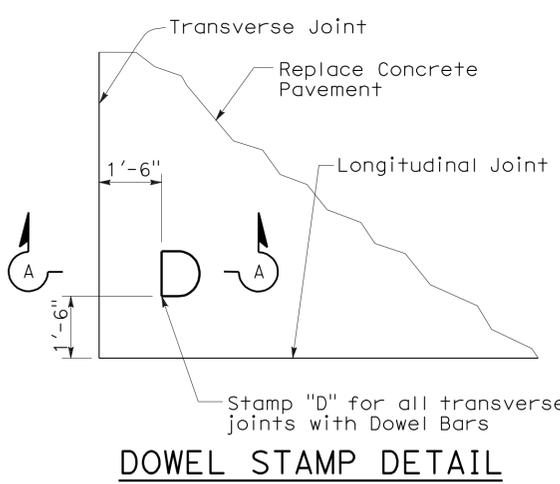
To accompany plans dated 11-7-11



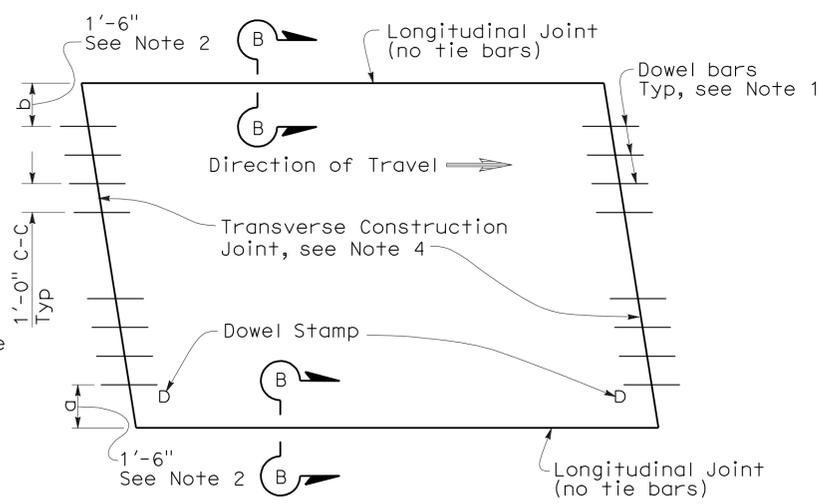
**NOTES:**

1. For details not shown, see Revised Standard Plan RSP P10.
2. Where the existing outer shoulder pavement is asphalt concrete pavement, the "a" dimension shall be 1'-0" and the "b" dimension shall be 2'-0".
3. Side forms shall be used where edge of pavement is adjacent to asphalt concrete.
4. For detail, see Transverse Construction Joint for existing concrete pavement detail on Revised Standard Plan RSP P10.
5. Transverse joint to match skew of existing joint. Omit dowel bars.
6. This Standard Plan only applicable when replacing multiple slabs in the same lane is less than 100'.

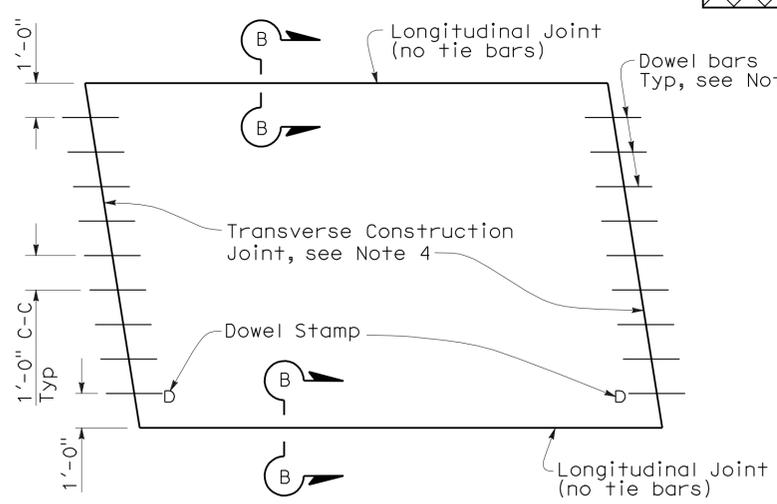
**LEGEND**



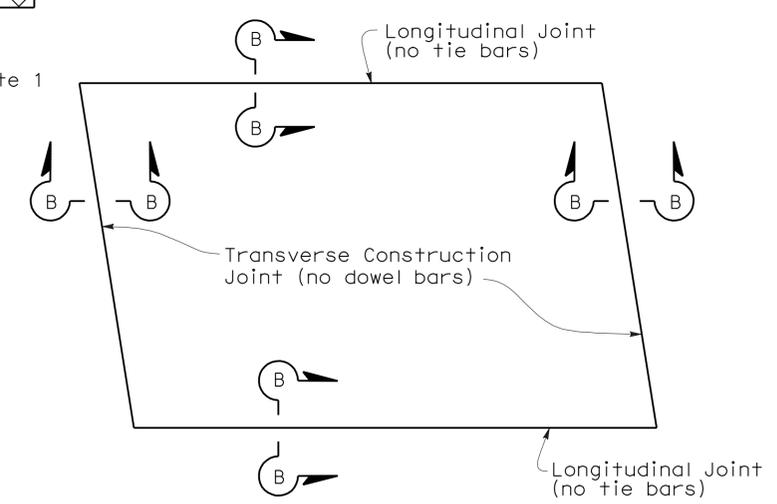
SECTION A-A



**TYPE I**  
(traffic lane lines match longitudinal joints)

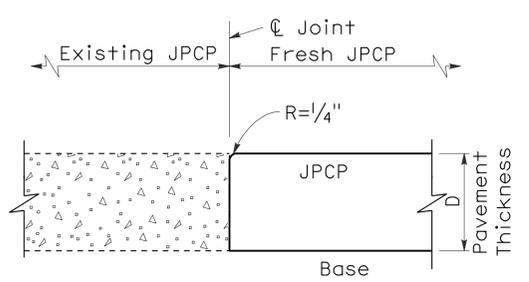


**TYPE II**  
(traffic lane lines do not match longitudinal joints)

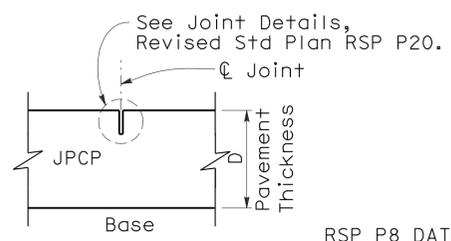


**TYPE III**  
(for short term repairs < 5 yrs design life or for slab replacements with a cracking and seating operation)

**SLAB LAYOUT**



SECTION B-B



SECTION C-C

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

**JOINTED PLAIN CONCRETE PAVEMENT-INDIVIDUAL SLAB REPLACEMENT**

NO SCALE

RSP P8 DATED MAY 15, 2009 SUPERSEDES RSP P8 DATED SEPTEMBER 1, 2006 AND STANDARD PLAN P8 DATED MAY 1, 2006 - PAGE 123 OF THE STANDARD PLANS BOOK DATED MAY 2006.

**REVISED STANDARD PLAN RSP P8**

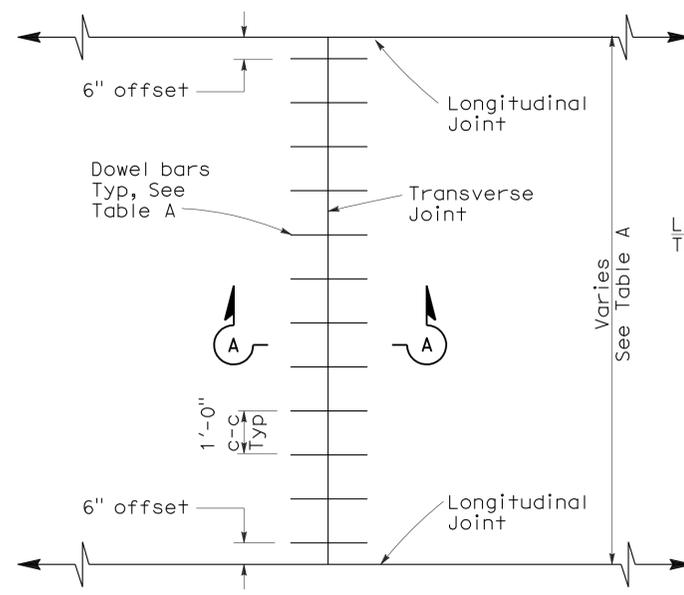
2006 REVISED STANDARD PLAN RSP P8

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SCI	85	0.3	14	25

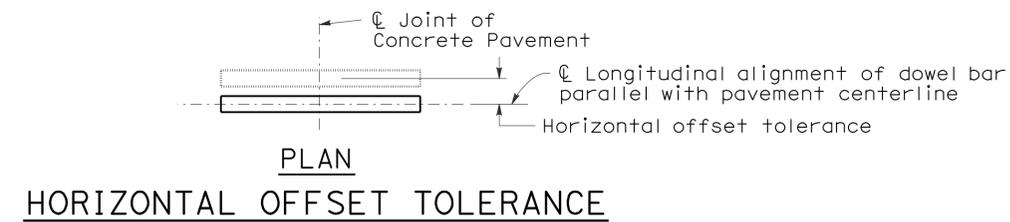
William K. Farnbach  
 REGISTERED CIVIL ENGINEER  
 No. C49042  
 Exp. 9-30-10  
 CIVIL  
 STATE OF CALIFORNIA

May 15, 2009  
 PLANS APPROVAL DATE

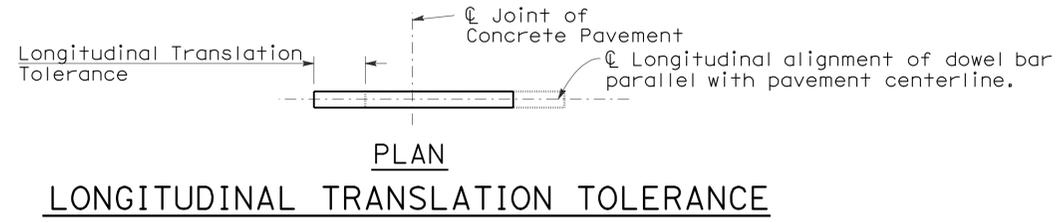
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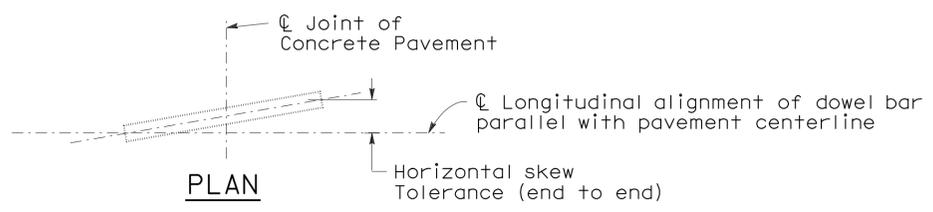
**TRANSVERSE JOINT DOWEL BAR LAYOUT**



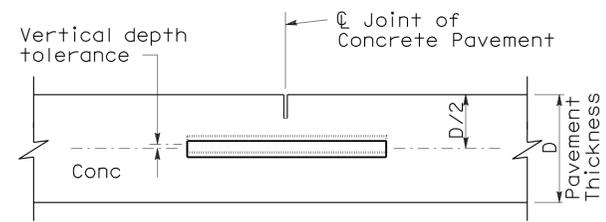
**HORIZONTAL OFFSET TOLERANCE**



**LONGITUDINAL TRANSLATION TOLERANCE**

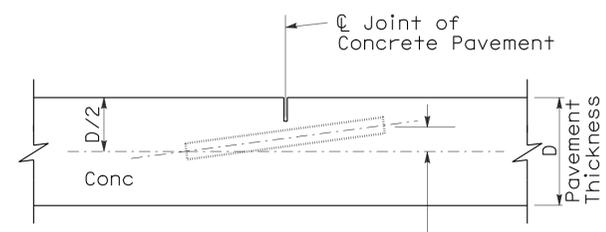


**HORIZONTAL SKEW TOLERANCE**



**ELEVATION**

**VERTICAL DEPTH TOLERANCE**



**ELEVATION**

**VERTICAL SKEW TOLERANCE**

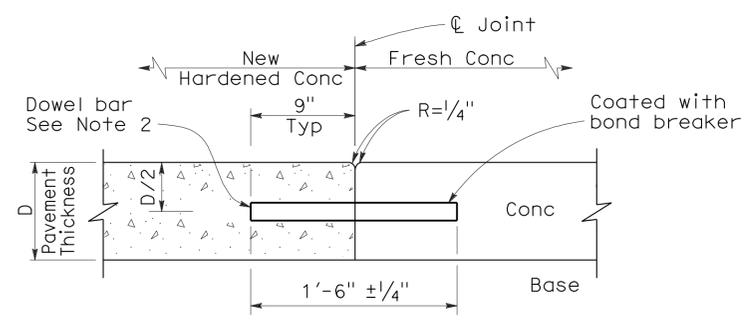
To accompany plans dated 11-7-11

**NOTES:**

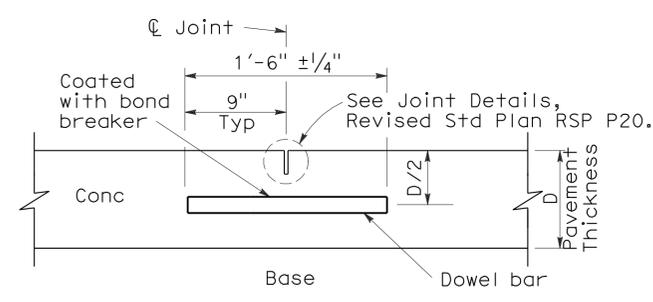
- See Revised Standard Plan RSP P1 for typical dowel bar placement and locations.
- 1 1/2" Dia smooth dowel bars are to be used with a pavement thickness, D, equal to or greater than 0.70 feet. For pavement thickness, D, less than 0.70 feet, use 1 1/4" Dia smooth dowel bars.
- For widths not shown, see Project Plans.
- If fresh concrete pavement is placed adjacent to existing concrete pavement, the top corner of the existing concrete pavement does not need to be rounded to the 1/4" radius, as shown.

**TABLE A (See Note 3)**

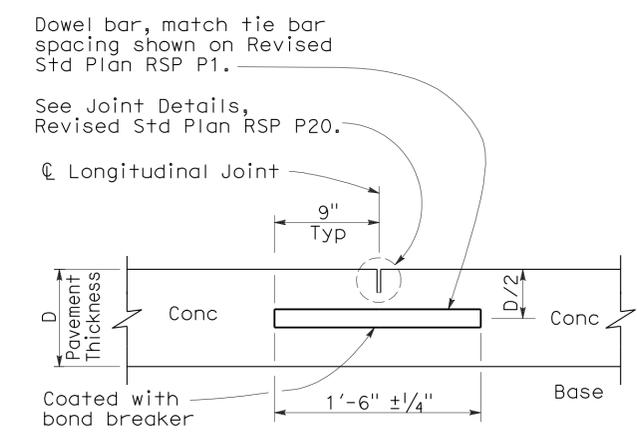
Dowel Bar Transverse Spacing Table	
Width between Longitudinal Joints	Number of Dowels between Longitudinal Joints
14'-0"	14
13'-0"	13
12'-0"	12
11'-0"	11
10'-0"	10
8'-0"	8
5'-0"	5
4'-0"	4



**SECTION A-A TRANSVERSE CONSTRUCTION JOINT DETAIL**

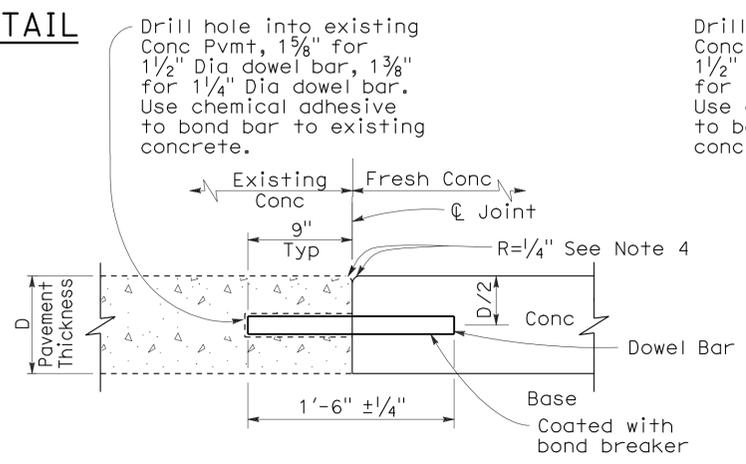


**TRANSVERSE CONTRACTION JOINT**



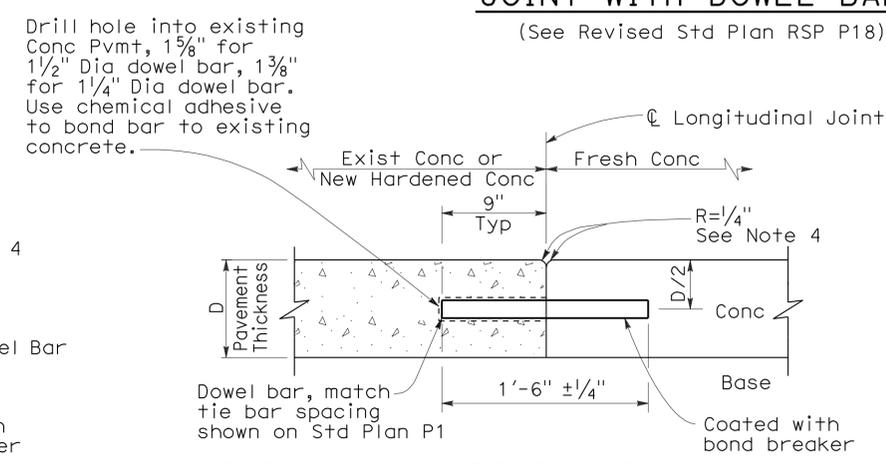
**LONGITUDINAL CONTRACTION JOINT WITH DOWEL BARS**

(See Revised Std Plan RSP P18)



**TRANSVERSE CONSTRUCTION JOINT FOR EXISTING CONCRETE PAVEMENT**

(Drill and bond locations)



**LONGITUDINAL CONSTRUCTION JOINT WITH DOWEL BARS**

(See Revised Std Plan RSP P18)

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION  
**CONCRETE PAVEMENT-DOWEL BAR DETAILS**  
NO SCALE

RSP P10 DATED MAY 15, 2009 SUPERSEDES STANDARD PLAN P10 DATED MAY 1, 2006 - PAGE 124 OF THE STANDARD PLANS BOOK DATED MAY 2006.

**REVISED STANDARD PLAN RSP P10**

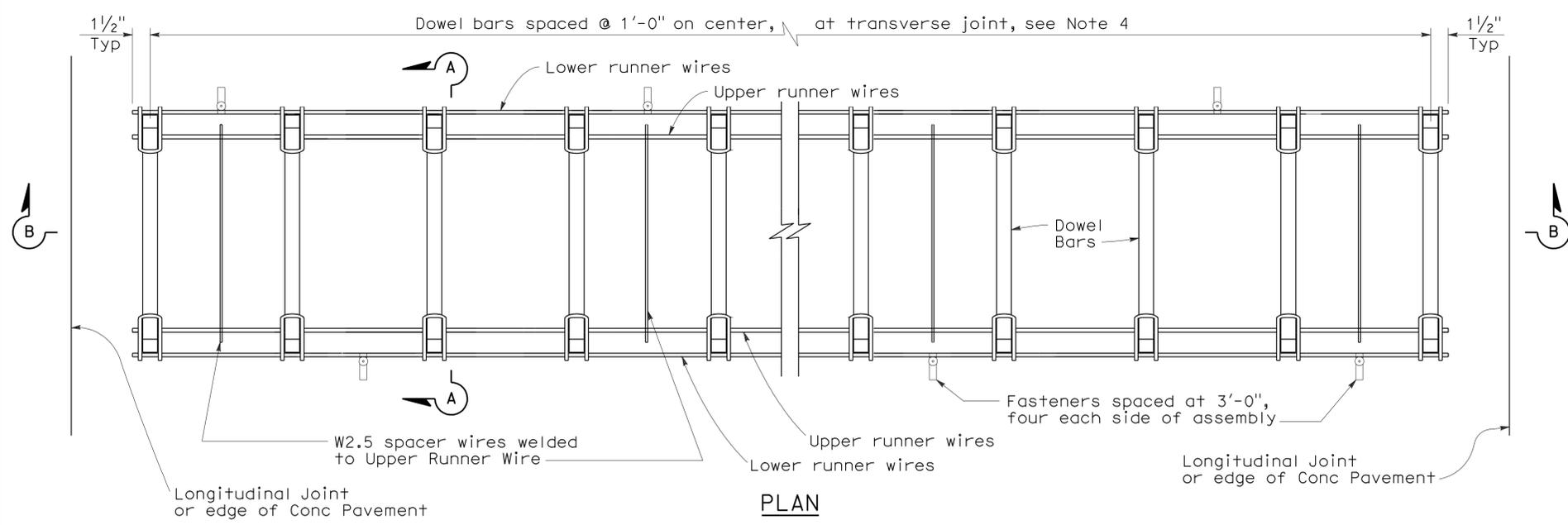
2006 REVISED STANDARD PLAN RSP P10

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SCI	85	0.3	15	25

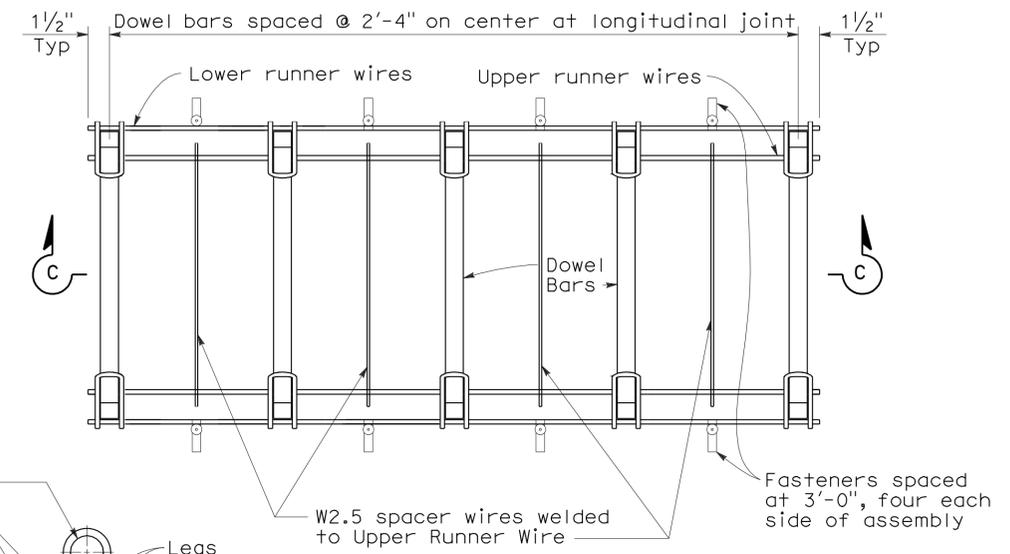
William K. Farnbach  
 REGISTERED CIVIL ENGINEER  
 May 15, 2009  
 PLANS APPROVAL DATE  
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REGISTERED PROFESSIONAL ENGINEER  
 William K. Farnbach  
 No. C49042  
 Exp. 9-30-10  
 CIVIL  
 STATE OF CALIFORNIA

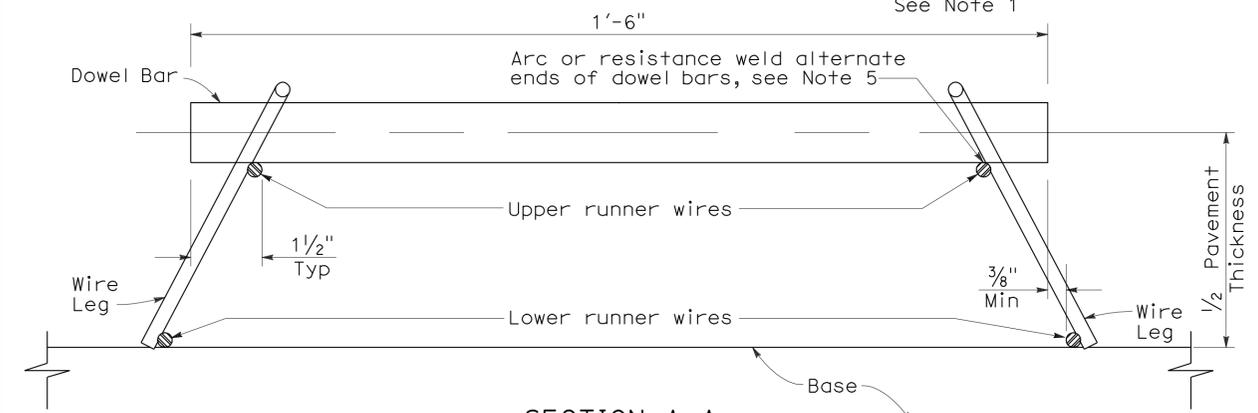
To accompany plans dated 11-7-11



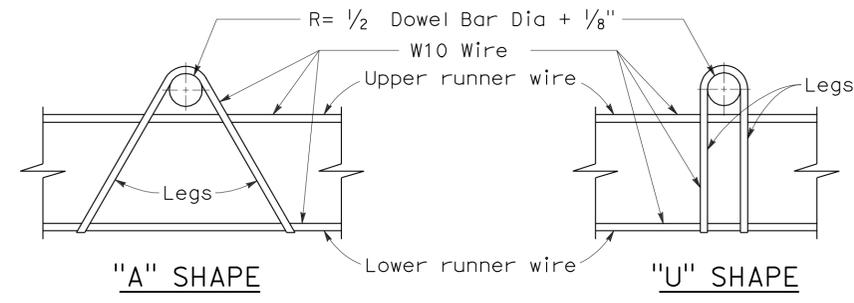
**PLAN  
DOWEL BAR BASKET  
(TRANSVERSE JOINT)**  
See Note 1



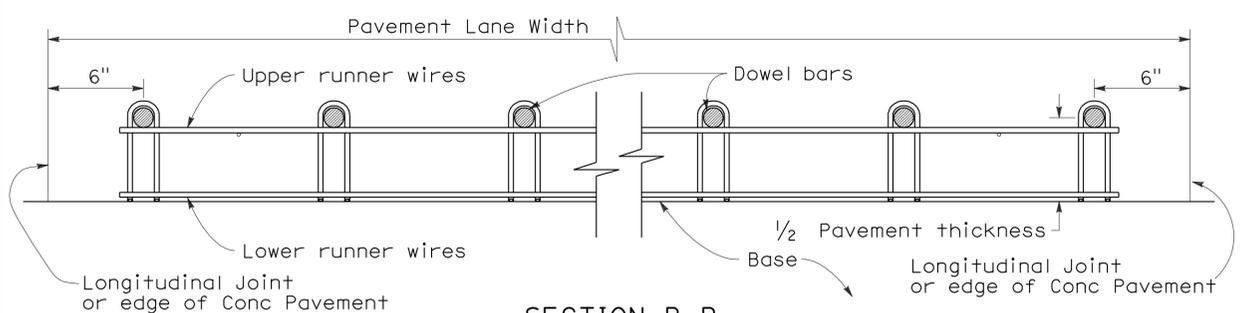
**PLAN  
DOWEL BAR BASKET  
(LONGITUDINAL JOINT)**  
See Note 1



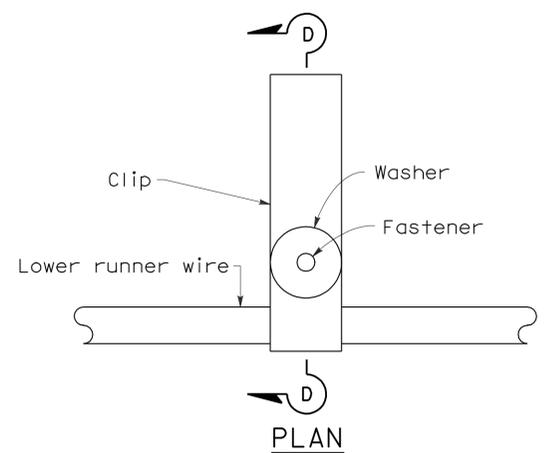
**SECTION A-A**



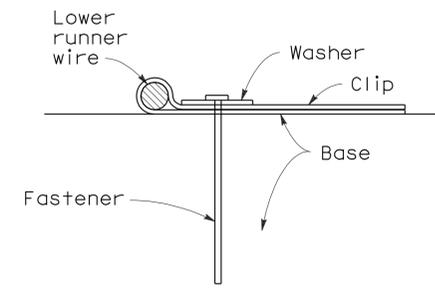
**ASSEMBLY FRAME DETAILS**



**SECTION B-B**  
See Note 1



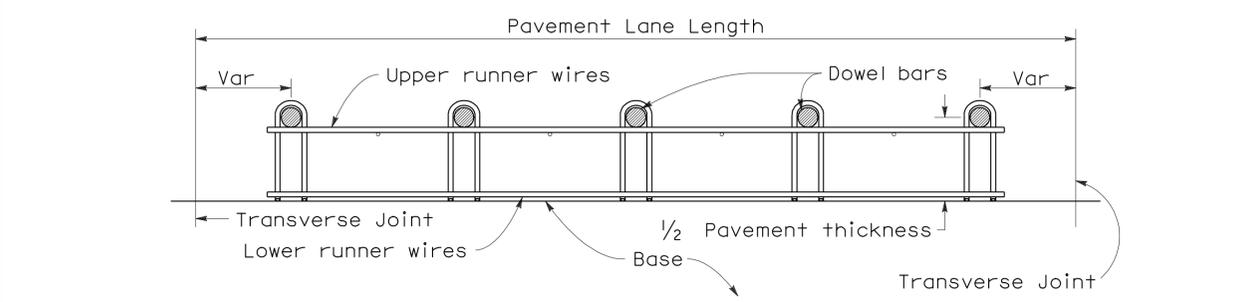
**FASTENER DETAIL**



**SECTION D-D**

**NOTES:**

- "U" frame shape assembly shown. "U" frame shape or "A" frame shape are acceptable.
- Wire sizes shown are minimum required.
- All wire intersections are to be resistance welded.
- Use tie bar spacing for longitudinal dowel bar locations. See Revised Std Plans RSPs P1, P2, and P3 for tie bar requirements.
- Weld may be at top or bottom of dowel bar.



**SECTION C-C**  
See Notes 1 and 4

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

**CONCRETE PAVEMENT-  
DOWEL BAR BASKET  
DETAILS**

NO SCALE

RSP P12 DATED MAY 15, 2009 SUPERSEDES RSP P12 DATED NOVEMBER 17, 2006 AND STANDARD PLAN P12 DATED MAY 1, 2006 - PAGE 125 OF THE STANDARD PLANS BOOK DATED MAY 2006.

**REVISED STANDARD PLAN RSP P12**

2006 REVISED STANDARD PLAN RSP P12

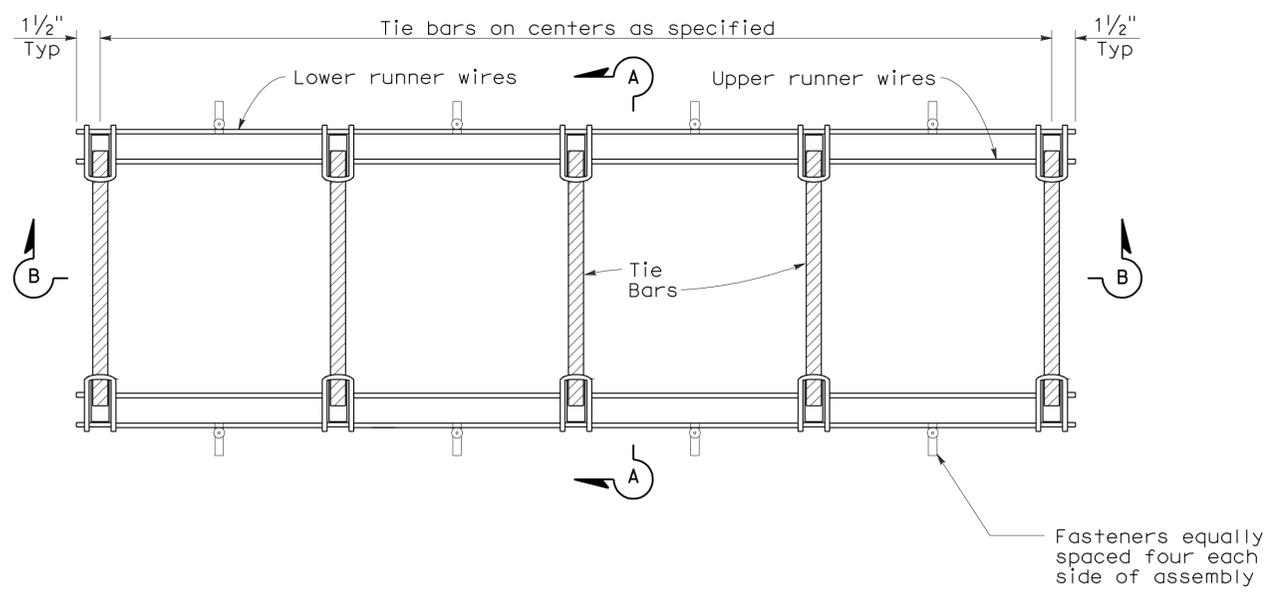
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SCI	85	0.3	16	25

*William K. Farnbach*  
 REGISTERED CIVIL ENGINEER  
 May 15, 2009  
 PLANS APPROVAL DATE

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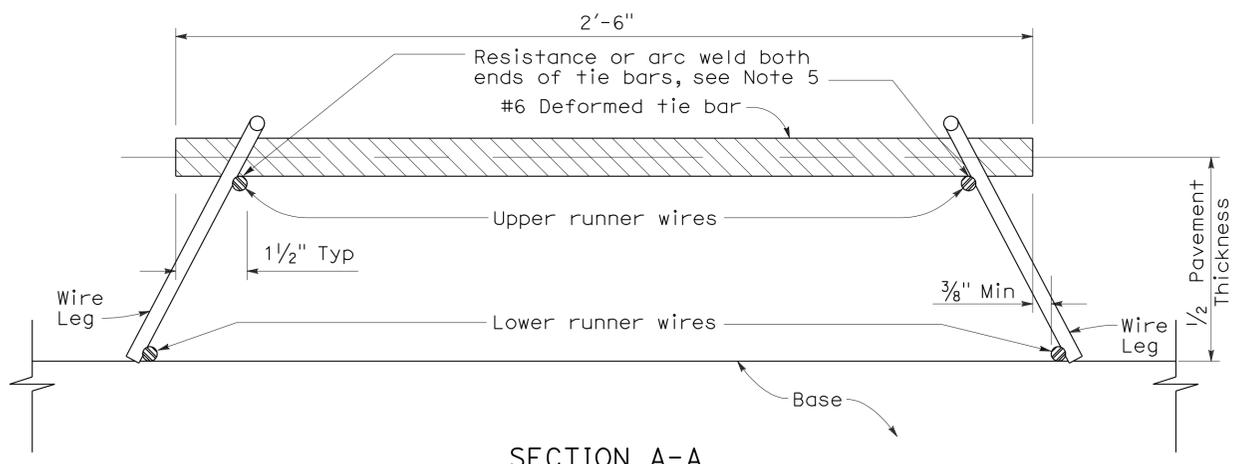
To accompany plans dated 11-7-11

2006 REVISED STANDARD PLAN RSP P17

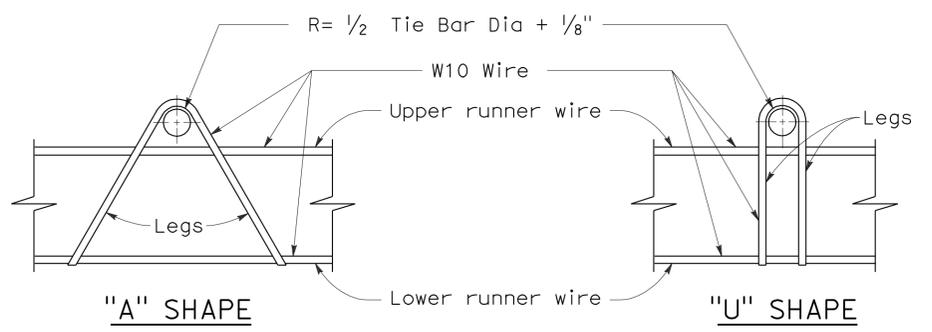


**PLAN**  
**TIE BAR BASKET**  
 (TIE BARS AT LONGITUDINAL JOINT)  
 See Note 1

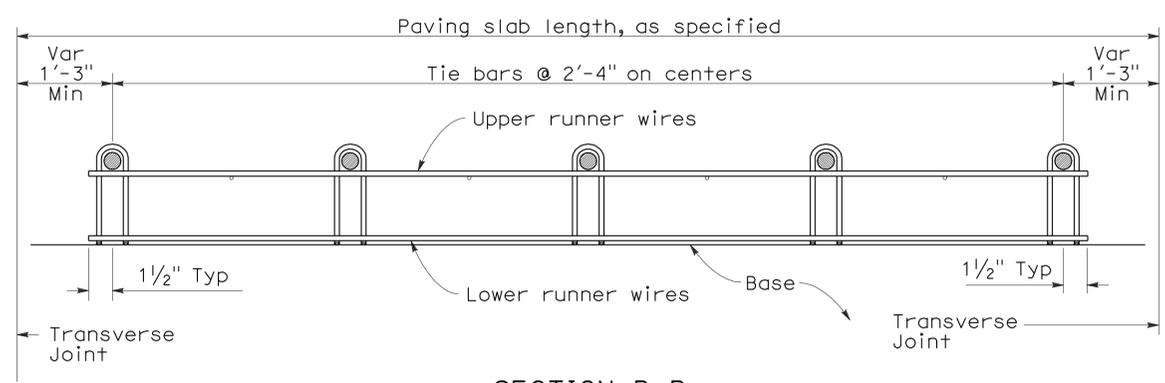
- NOTES:**
- "U" frame shape assembly shown. "U" frame shape or "A" frame shape are acceptable.
  - Wire sizes shown are minimum required.
  - All wire intersections are to be resistance welded.
  - Not for use on nondoweled skewed jointed plain concrete pavement.
  - Weld may be at top or bottom of tie bar.



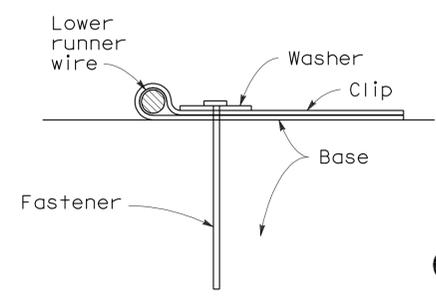
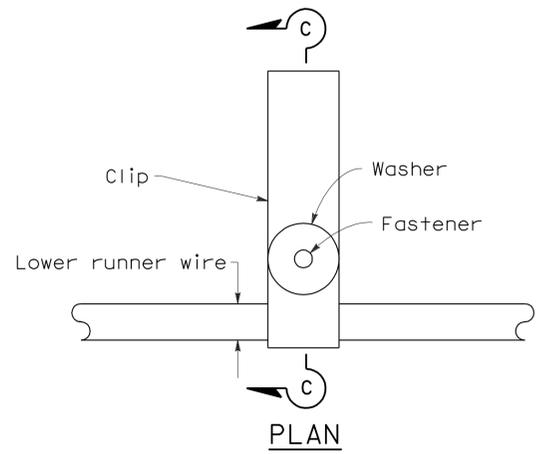
**SECTION A-A**



**ASSEMBLY FRAME DETAILS**



**SECTION B-B**  
 See Note 1



**FASTENER DETAIL**

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION  
**CONCRETE PAVEMENT -  
 TIE BAR BASKET  
 DETAILS**  
 NO SCALE

RSP P17 DATED MAY 15, 2009 SUPERSEDES RSP P17 DATED NOVEMBER 17, 2006 AND STANDARD PLAN P17 DATED MAY 1, 2006 - PAGE 126 OF THE STANDARD PLANS BOOK DATED MAY 2006.

**REVISED STANDARD PLAN RSP P17**

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SCI	85	0.3	17	25

William K. Farnbach  
 REGISTERED CIVIL ENGINEER  
 June 5, 2009  
 PLANS APPROVAL DATE

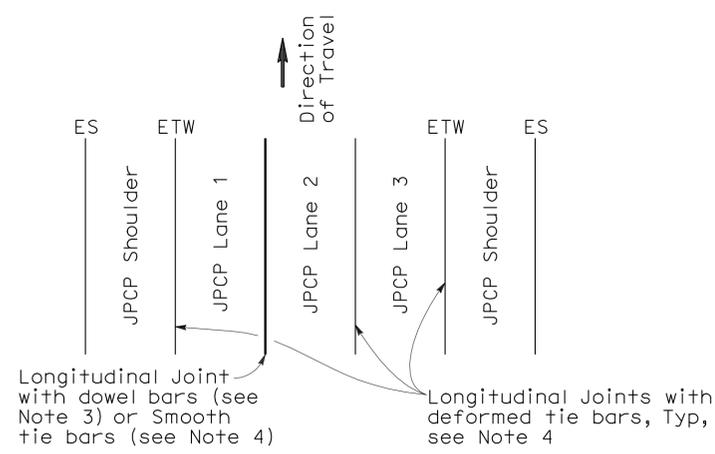
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REGISTERED PROFESSIONAL ENGINEER  
 William K. Farnbach  
 No. C49042  
 Exp. 9-30-10  
 CIVIL  
 STATE OF CALIFORNIA

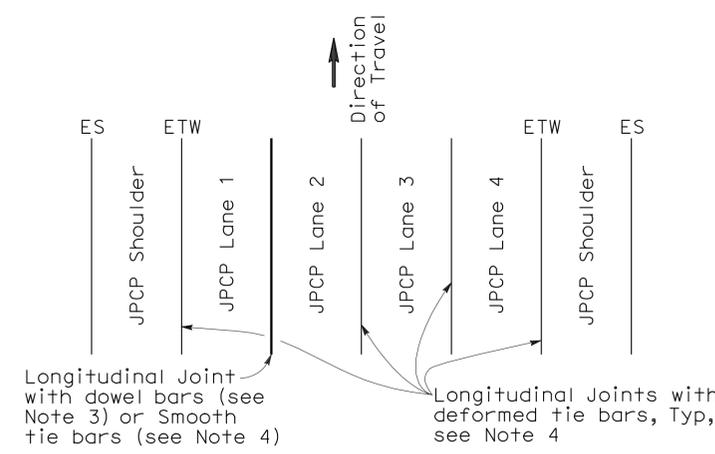
To accompany plans dated 11-7-11

**NOTES:**

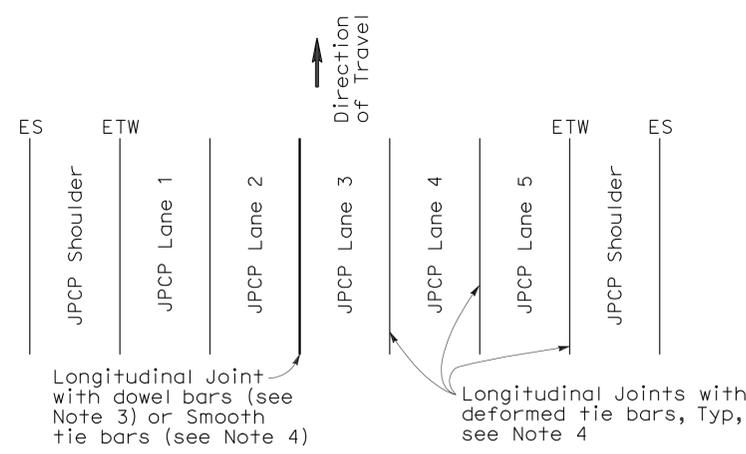
- Where Lean Concrete Base is not used as base material, the joint filler material used for the longitudinal isolation joint shall only extend to the bottom of the new concrete slab. See Detail A.
- Use  $5/8" \pm 1/16"$  dimension for silicone sealant.
- See Revised Standard Plan RSP P10 for longitudinal joint with dowel bars.
- See Revised Standard Plan RSP P1.
- See Revised Standard Plan RSP P2.



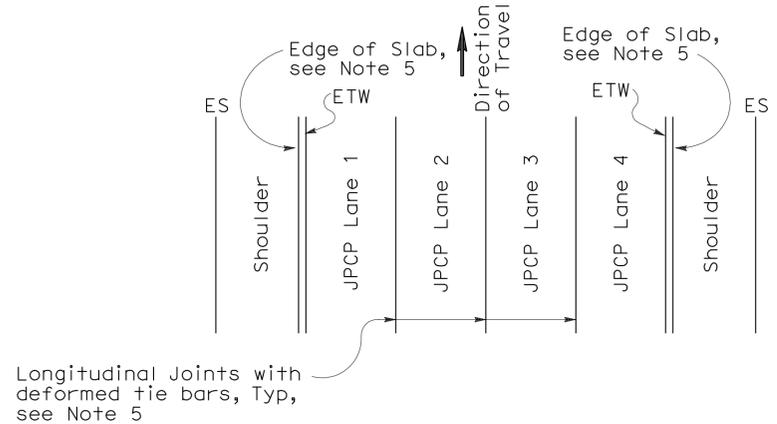
**3 LANES WITH TIED CONCRETE SHOULDERS**  
PLAN



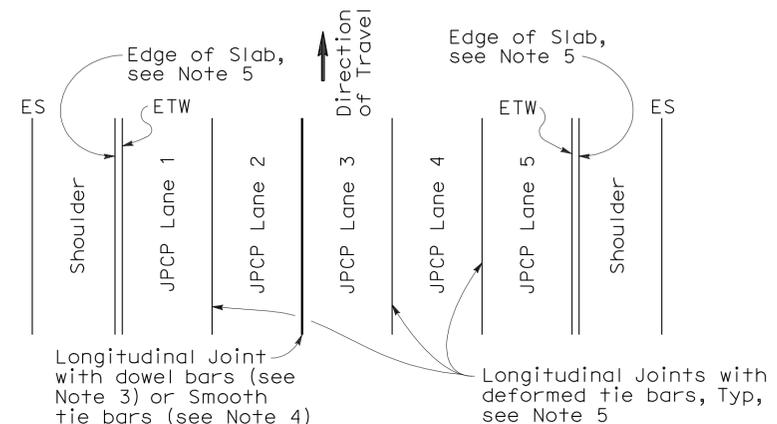
**4 LANES WITH TIED CONCRETE SHOULDERS**  
PLAN



**5 LANES WITH TIED CONCRETE SHOULDERS**  
PLAN



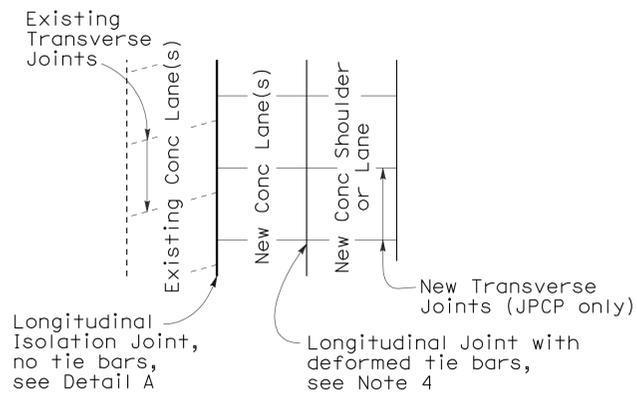
**4 LANES OR LESS WITH WIDENED SLAB**  
PLAN



**5 LANES WITH WIDENED SLAB**  
PLAN

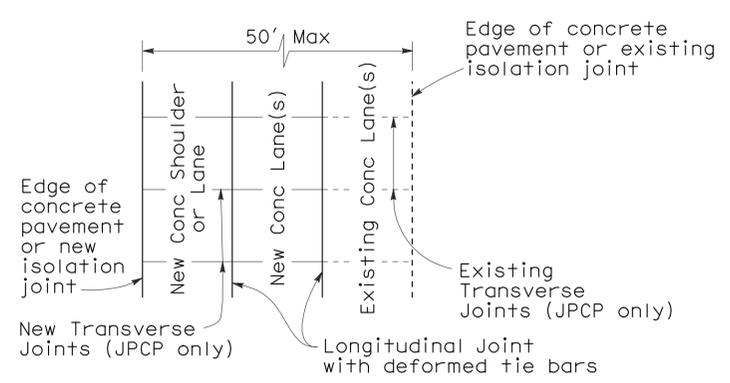
**NEW CONSTRUCTION**

Location of Longitudinal Joints (For JPCP)



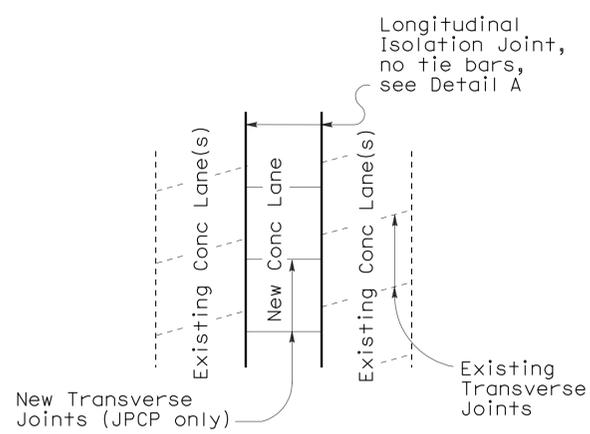
**CASE 1**  
PLAN

Transverse Joints do not align between new and existing



**CASE 2**  
PLAN

Transverse Joints align between new and existing

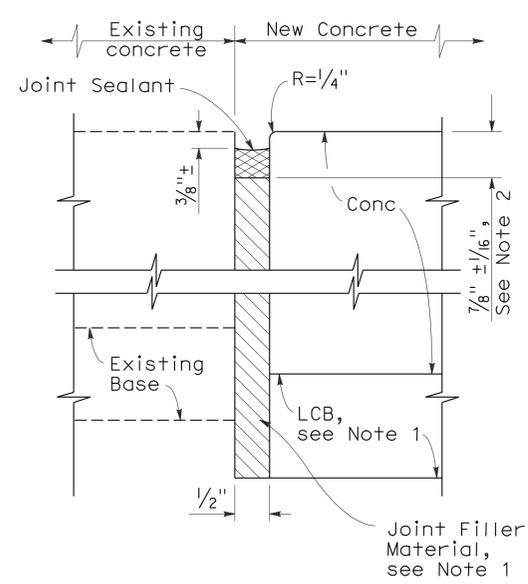


**CASE 3 (INTERIOR LANE REPLACEMENT)**  
PLAN

Transverse Joints do not align between new and existing

**LANE/SHOULDER ADDITION OR RECONSTRUCTION**

(For JPCP and CRCP)



**DETAIL A**  
**ISOLATION JOINT**

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION  
**CONCRETE PAVEMENT-LANE SCHEMATICS AND ISOLATION JOINT DETAIL**

NO SCALE

RSP P18 DATED JUNE 5, 2009 SUPERSEDES RSP P18 DATED MAY 15, 2009, RSP P18 DATED NOVEMBER 17, 2006 AND STANDARD PLAN P18 DATED MAY 1, 2006 - PAGE 127 OF THE STANDARD PLANS BOOK DATED MAY 2006.

**REVISED STANDARD PLAN RSP P18**

2006 REVISED STANDARD PLAN RSP P18

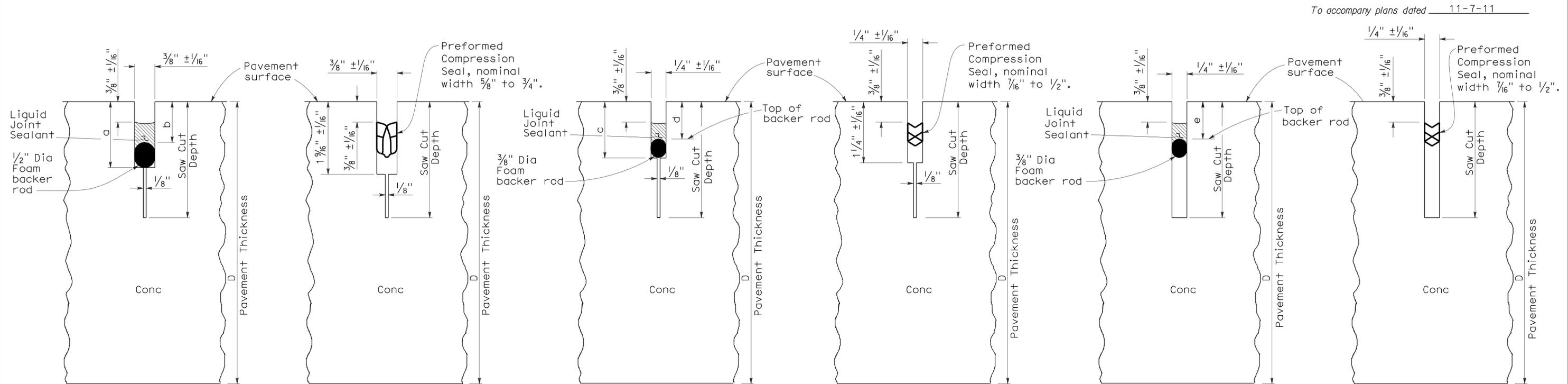
**NOTE:**

1. Tie bars, dowel bars, and reinforcement are not shown in joint seal details, see Revised Standard Plans RSP P1, RSP P3, RSP P10, RSP P35, RSP P45, or RSP P46 as applicable.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SCI	85	0.3	18	25

*William K. Farnbach*  
 REGISTERED CIVIL ENGINEER  
 May 15, 2009  
 PLANS APPROVAL DATE

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**LIQUID SEALANT**

**COMPRESSION SEAL**

**LIQUID SEALANT**

**COMPRESSION SEAL**

**LIQUID SEALANT**

**COMPRESSION SEAL**

**TYPE A1**

**TYPE A2**

**TYPE B**

Transverse Contraction Joints

Longitudinal Contraction Joints

Longitudinal or Transverse Contraction Joint

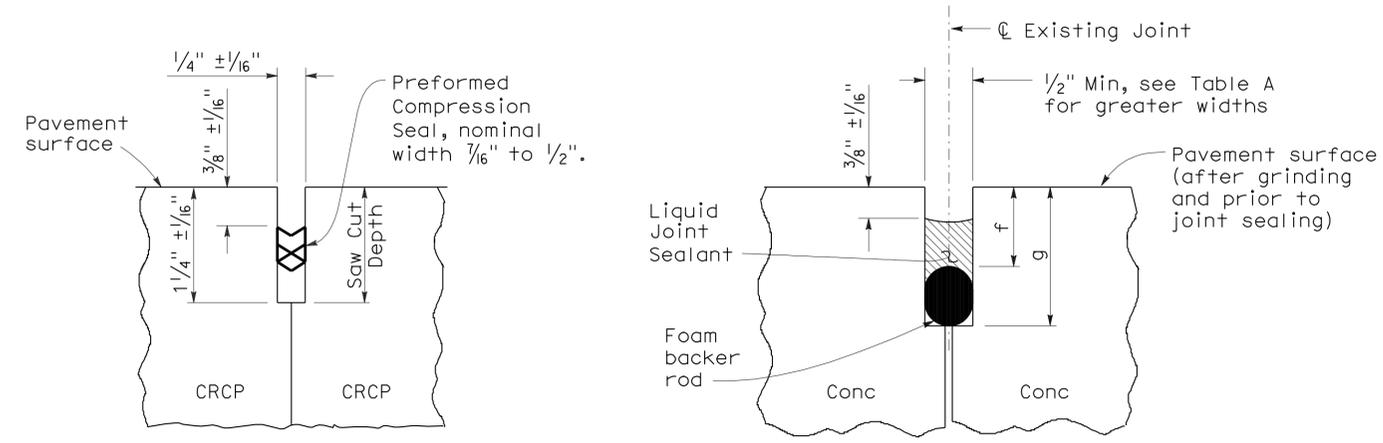
To accompany plans dated 11-7-11

**LIQUID SEALANT RESERVOIR DEPTH**

LIQUID SEALANT MATERIAL	3/8" Joint Width Type A1		1/4" Joint Width Type A2		1/4" Joint Width Type B
	DIMENSION		DIMENSION		DIMENSION
	a	b	c	d	e
SILICONE	1" ± 1/16"	5/8" ± 1/16"	15/16" ± 1/16"	9/16" ± 1/16"	9/16" ± 1/16"
ASPHALT RUBBER	1 3/16" ± 1/16"	3/4" ± 1/16"	1 1/16" ± 1/16"	11/16" ± 1/16"	11/16" ± 1/16"

**TABLE A (TYPE R JOINT)**

Sawn Joint Width	Backer Rod Diameter ± 1/16"	DIMENSION "f"	DIMENSION "g"
1"	1 5/16"	7/8"	2 1/4"
7/8"	1 3/16"	13/16"	2"
3/4"	1"	3/4"	1 3/4"
5/8"	7/8"	11/16"	1 1/2"
1/2"	11/16"	5/8"	1 1/4"



**COMPRESSION SEAL**

**LIQUID SEALANT**

**TYPE C**

**TYPE R**

Transverse and Longitudinal Construction Joints (For CRCP)

Retrofit Transverse and Longitudinal Joints

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION  
**CONCRETE PAVEMENT-JOINT DETAILS**  
 NO SCALE

RSP P20 DATED MAY 15, 2009 SUPERSEDES STANDARD PLAN P20 DATED MAY 1, 2006 - PAGE 128 OF THE STANDARD PLANS BOOK DATED MAY 2006.

**REVISED STANDARD PLAN RSP P20**

2006 REVISED STANDARD PLAN RSP P20

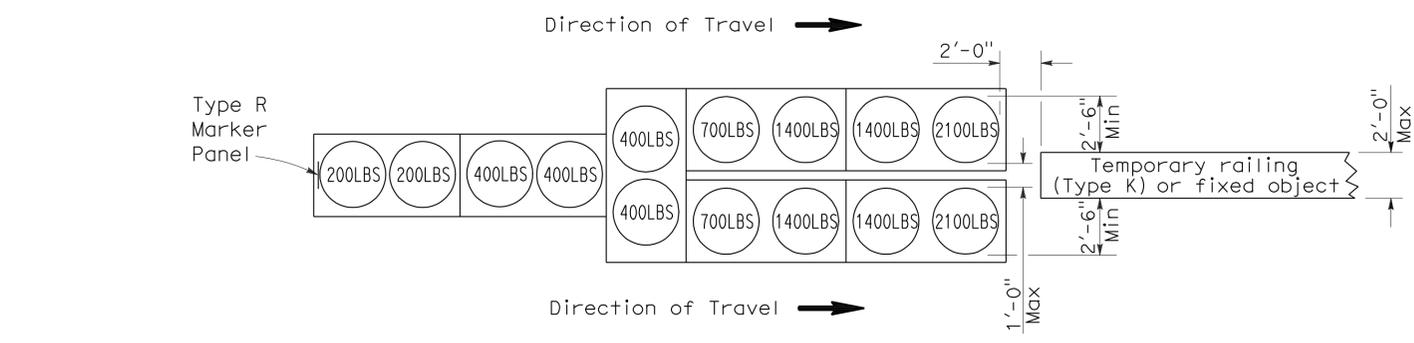
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SCI	85	0.3	19	25

*Randell D. Hiatt*  
REGISTERED CIVIL ENGINEER

June 6, 2008  
PLANS APPROVAL DATE

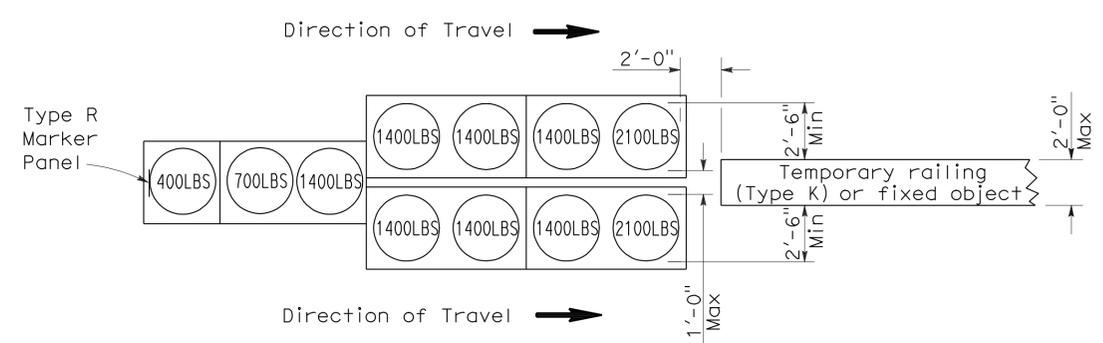
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To accompany plans dated 11-7-11



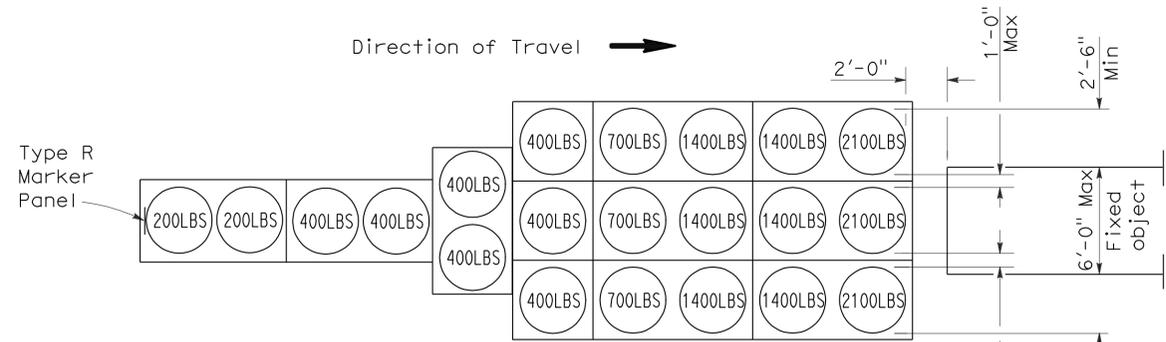
**ARRAY 'TU14'**

Approach speed 45 mph or more



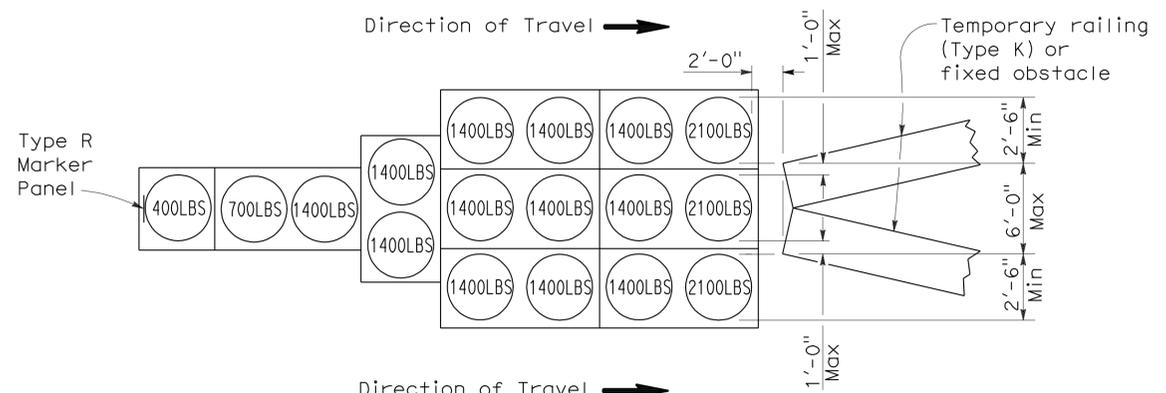
**ARRAY 'TU11'**

Approach speed less than 45 mph



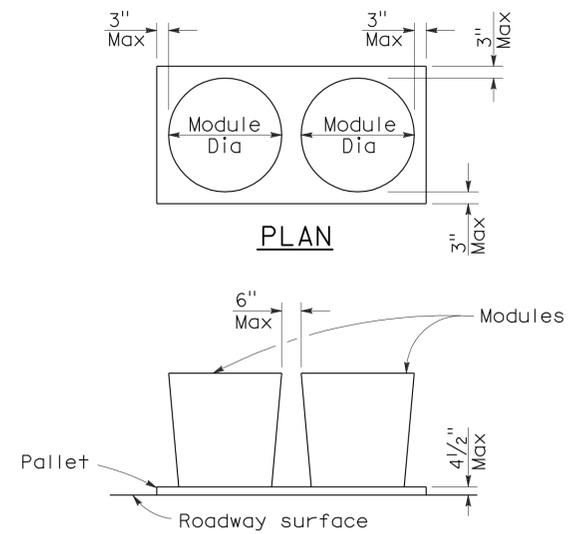
**ARRAY 'TU21'**

Approach speed 45 mph or more



**ARRAY 'TU17'**

Approach speed less than 45 mph



**CRASH CUSHION PALLET DETAIL**  
See Note 7

**NOTES:**

1. (XXX) Indicates sand filled module location and weight of sand in pounds for each module. Module spacing is based on the greater diameter of the module.
2. All sand weights are nominal.
3. Temporary crash cushion arrays shall not encroach on the traveled way.
4. Place the top of Type R marker panel 1" below the module lid.
5. Refer to Standard Plan A73B for marker details.
6. Approach speeds indicated conform to NCHRP 350 Report criteria.
7. Use of pallets is optional.

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION  
**TEMPORARY CRASH CUSHION,  
SAND FILLED  
(UNIDIRECTIONAL)**

NO SCALE

RSP T1A DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN T1A  
DATED MAY 1, 2006 - PAGE 211 OF THE STANDARD PLANS BOOK DATED MAY 2006.

**REVISED STANDARD PLAN RSP T1A**

2006 REVISED STANDARD PLAN RSP T1A

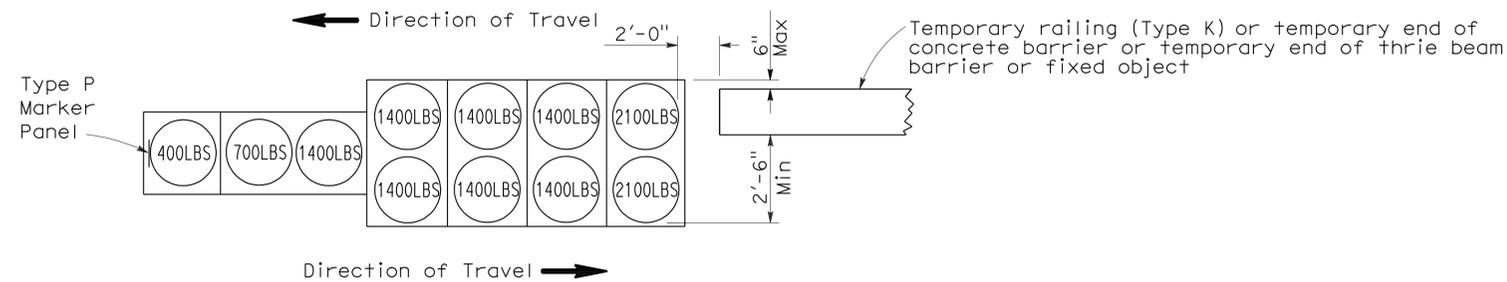
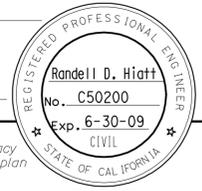
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SCI	85	0.3	20	25

*Randell D. Hiatt*  
REGISTERED CIVIL ENGINEER

June 6, 2008  
PLANS APPROVAL DATE

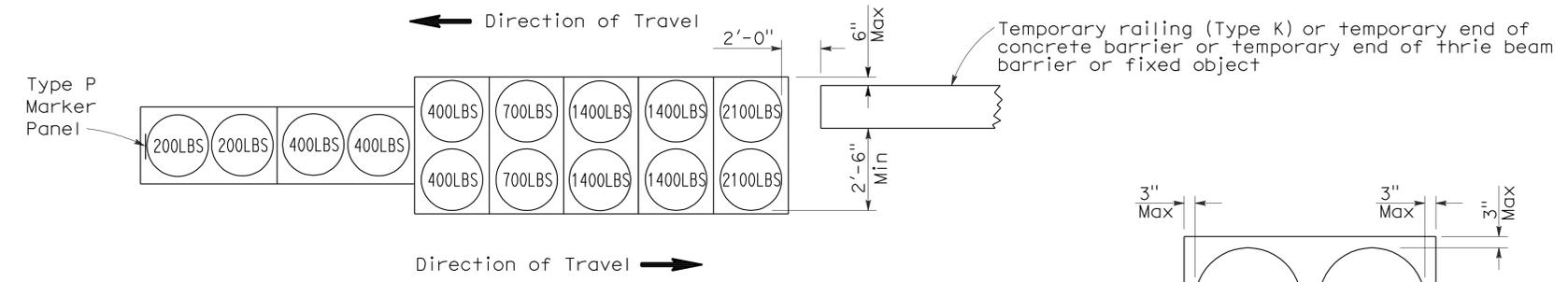
*The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.*

To accompany plans dated 11-7-11



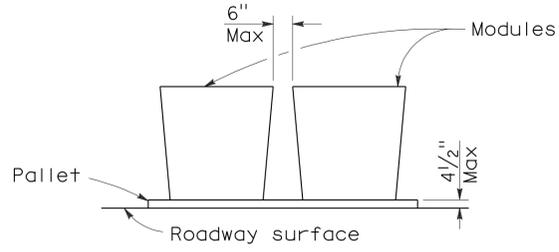
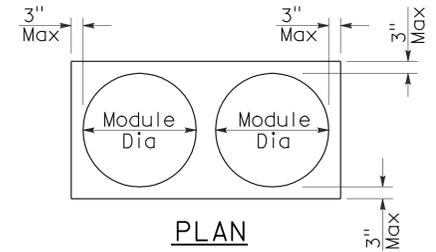
**ARRAY 'TB11'**

Approach speed less than 45 mph



**ARRAY 'TB14'**

Approach speed 45 mph or more



**CRASH CUSHION PALLET DETAIL**  
See Note 7

**NOTES:**

1. (XXX) Indicates sand filled module location and weight of sand in pounds for each module. Module spacing is based on the greater diameter of the module.
2. All sand weights are nominal.
3. Temporary crash cushion arrays shall not encroach on the traveled way.
4. Place the Type P marker panel so that the bottom of the panel rests upon the pallet.
5. Refer to Standard Plan A73B for marker details.
6. Approach speeds indicated conform to NCHRP 350 Report criteria.
7. Use of pallets is optional.

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION  
**TEMPORARY CRASH CUSHION,  
SAND FILLED  
(BIDIRECTIONAL)**  
NO SCALE

RSP T1B DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN T1B  
DATED MAY 1, 2006 - PAGE 212 OF THE STANDARD PLANS BOOK DATED MAY 2006.

**REVISED STANDARD PLAN RSP T1B**

2006 REVISED STANDARD PLAN RSP T1B

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SCI	85	0.3	21	25

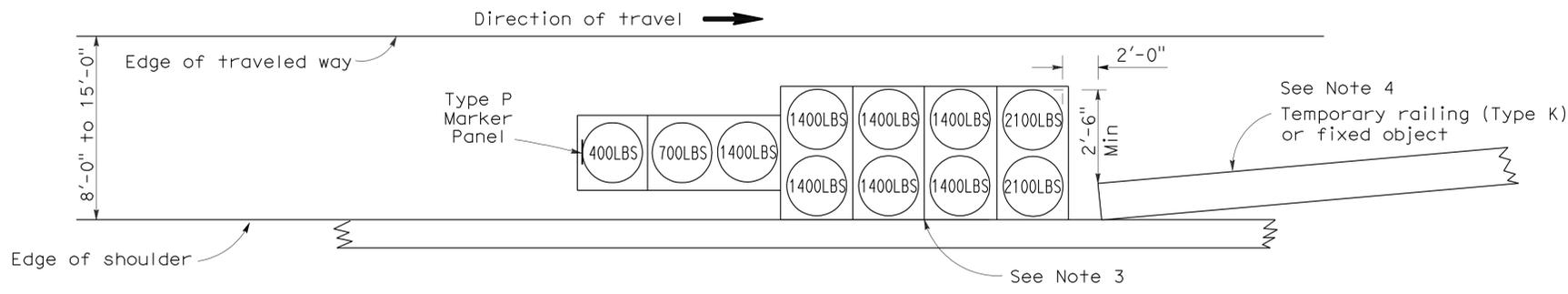
*Randell D. Hiatt*  
REGISTERED CIVIL ENGINEER

June 6, 2008  
PLANS APPROVAL DATE

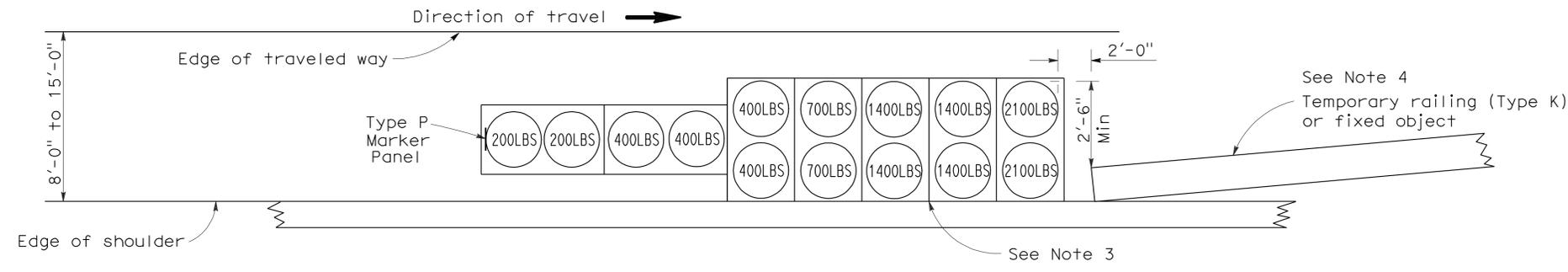
*Randell D. Hiatt*  
REGISTERED PROFESSIONAL ENGINEER  
No. C50200  
Exp. 6-30-09  
CIVIL  
STATE OF CALIFORNIA

The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

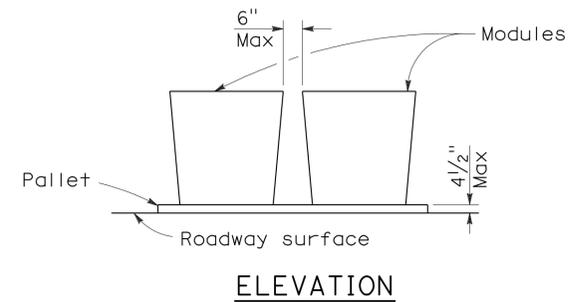
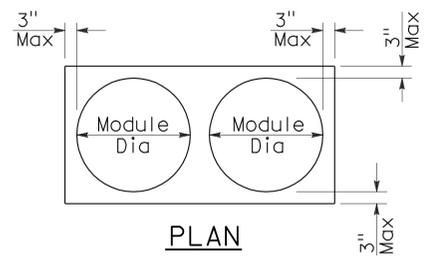
To accompany plans dated 11-7-11



**ARRAY 'TS11'**  
Approach speed less than 45 mph  
See Note 9



**ARRAY 'TS14'**  
Approach speed 45 mph or more  
See Note 9



**CRASH CUSHION PALLET DETAIL**  
See Note 11

**NOTES:**

- (XXX) Indicates sand filled module location and weight of sand in pounds for each module. Module spacing is based on the greater diameter of the module.
- All sand weights are nominal.
- The temporary crash cushion arrays shown on this plan shall be used only in locations where there will be traffic on one side of the temporary crash cushion array.
- If the fixed object or approach end of the temporary railing is less than 15'-0" from the edge of traveled way, a temporary crash cushion is required in a construction or work zone.
- Temporary crash cushion arrays shall not encroach on the traveled way.
- Arrays for median shoulders shall conform to details shown on this plan for outside shoulders.
- Place the Type P marker panel so that the bottom of the panel rests upon the pallet and faces traffic.
- Refer to Standard Plan A73B for marker details.
- For shoulder widths less than 8'-0", appropriate approved crash cushion protection, other than sand filled modules, shall be provided at fixed objects and at approach ends of temporary railing. The specific type of crash cushion shall be as shown on the project plans or as specified in the Special Provisions, or if not shown on the project plans or specified in the Special Provisions, shall be as approved by the Engineer.
- Approach speeds indicated conform to NCHRP 350 Report criteria.
- Use of pallets is optional.

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION  
**TEMPORARY CRASH CUSHION,  
SAND FILLED  
(SHOULDER INSTALLATIONS)**

NO SCALE  
RSP T2 DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN T2  
DATED MAY 1, 2006 - PAGE 213 OF THE STANDARD PLANS BOOK DATED MAY 2006.

**REVISED STANDARD PLAN RSP T2**

2006 REVISED STANDARD PLAN RSP T2

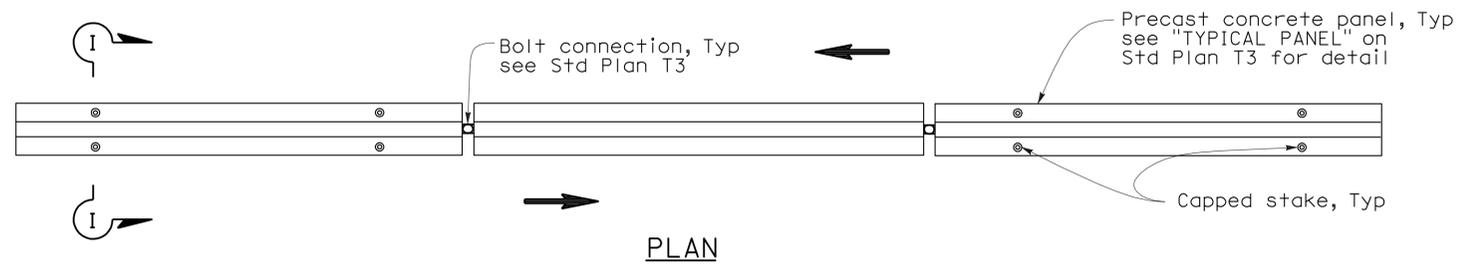
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	85	0.3	22	25

*Randell D. Hiatt*  
REGISTERED CIVIL ENGINEER

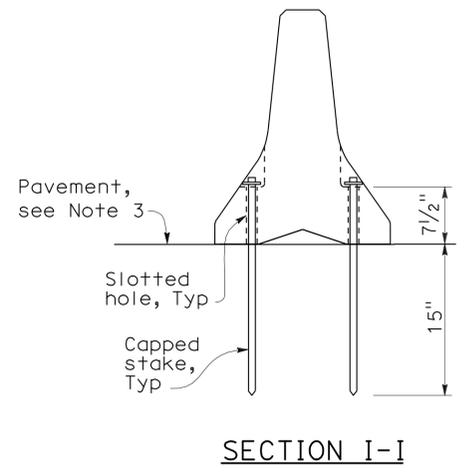
May 20, 2011  
PLANS APPROVAL DATE

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To accompany plans dated 11-7-11

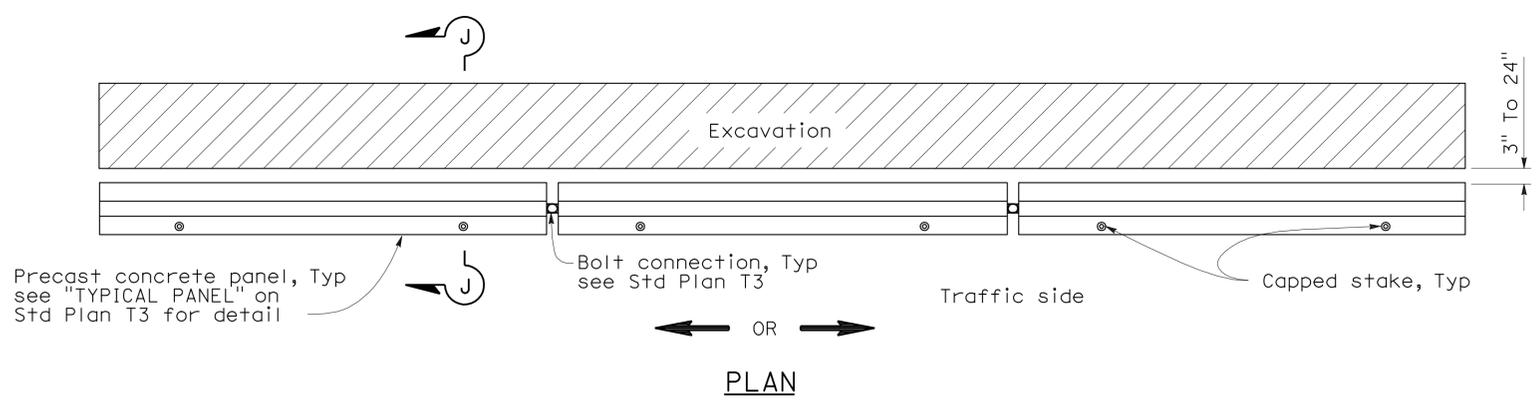


**RAILING STAKING CONFIGURATION FOR TWO-WAY TRAFFIC**  
See Note 1

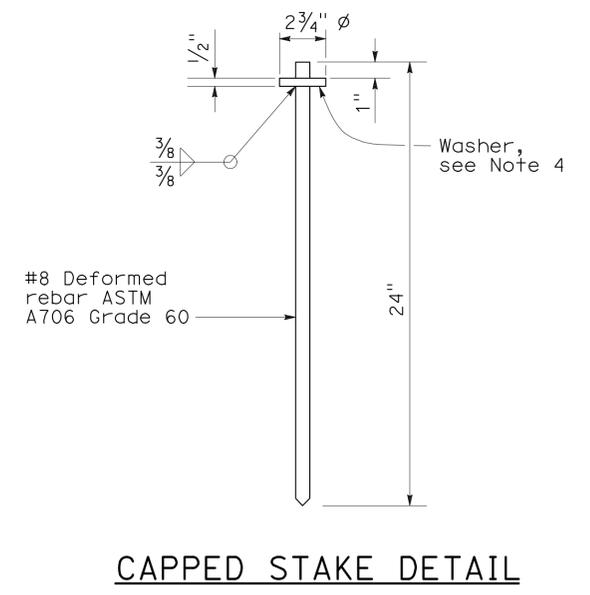
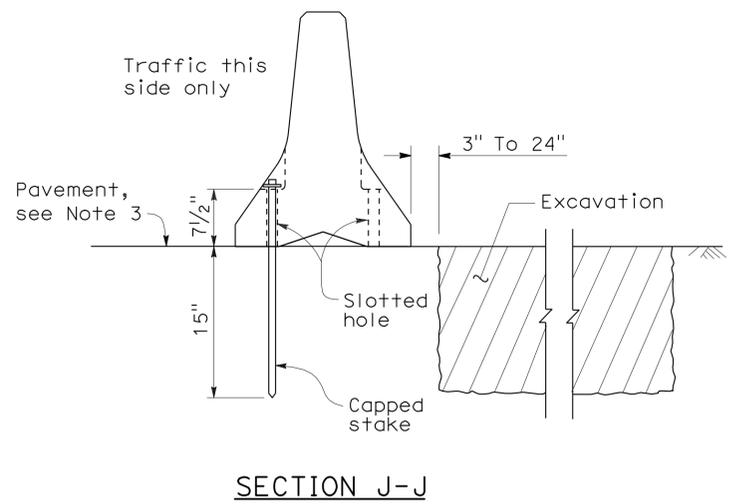


**NOTES:**

1. Where Type K Temporary Railing is placed as a temporary or long term barrier in two-way traffic on highways with less than 24" from the edge of traveled way, use four capped stakes per every other panel with end panels staked.
2. Where Type K Temporary Railing is placed 3" to 24" from the edge of an excavation on highways, use two capped stakes per panel along the traffic side.
3. Staked Type K Temporary Railing must be supported by at least 4" thick concrete, hot mix asphalt or existing asphalt concrete pavement.
4. The minimum yield strength for the washer must be 60,000 psi.
5. Direction of adjacent traffic indicated by  $\Rightarrow$ .



**RAILING STAKING CONFIGURATION ADJACENT TO AN EXCAVATION**  
See Note 2



STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

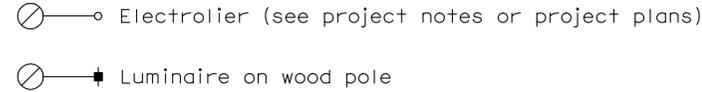
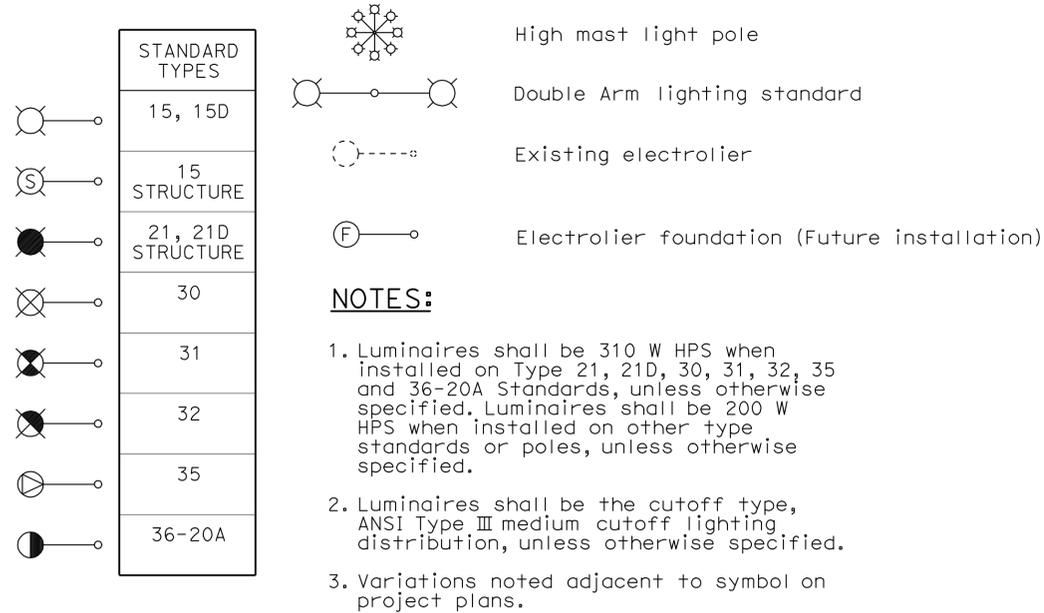
**TEMPORARY RAILING  
(TYPE K)**

NO SCALE

NSP T3A DATED MAY 20, 2011 SUPPLEMENTS  
THE STANDARD PLANS BOOK DATED MAY 2006.

2006 NEW STANDARD PLAN NSP T3A

# ELECTROLIERS



## STANDARD NOTES:

- AB** Abandon. If applied to conduit, remove conductors.
- BC** Install pull box in existing conduit run.
- BP** Pedestrian barricade, type as indicated on plan.
- CB** Install conduit into existing pull box.
- CC** Connect new and existing conduit. Remove existing conductors and install conductors as indicated.
- CF** Conduit to remain for future use. Remove conductors. Install pull wire or rope.
- DH** Detector handhole.
- FA** Foundation to be abandoned.
- IS** Install sign on signal mast arm.
- NS** No slip base on standard.
- PEC** Photoelectric control.
- PEU** Photoelectric unit.
- RC** Equipment or material to be removed and become the property of the Contractor.
- RE** Remove electrolier, fuses and ballast. Tape ends of conductors.
- RL** Relocate equipment.
- RR** Remove and reuse equipment.
- RS** Remove and salvage equipment.
- SC** Splice new to existing conductors.
- SD** Service disconnect.
- SF** Standard to remain for future use. Remove luminaire, pole conductors, fuses and ballast.
- TSP** Telephone service point.

# ABBREVIATIONS AND EQUIPMENT DESIGNATIONS

## PROPOSED EXISTING

PROPOSED	EXISTING	DESCRIPTION
BBS	bbs	Battery backup system
BC	bc	Bolt circle
C	C	Conduit
CCTV	cctv	Closed circuit television
CKT	ckt	Circuit
CMS	cms	Changeable message sign
DLC	dlc	Loop detector lead-in cable
EMS	ems	Extinguishable message sign
EVC	evc	Emergency vehicle cable
EVD	evd	Emergency vehicle detector
FB	fb	Flashing beacon
FBCA	fbca	Flashing beacon control assembly
FBS	fbs	Flashing beacon with slip base
FO	fo	Fiber optic
G	G	Ground (Equipment Grounding Conductor)
GFCI	GFCI	Ground fault circuit interrupt
HAR	har	Highway advisory radio
HEX	hex	Hexagonal
HPS	hps	High pressure sodium
IISNS	iisns	Internally illuminated street name sign
ISL	isl	Induction sign lighting
LED	led	Light emitting diode
LMA	lma	Luminaire mast arm
LPS	lps	Low pressure sodium
LTG	ltg	Lighting
LUM	lum	Luminaire
MAT	mat	Mast arm mounting vehicle signal faces, top attachment
MAS	mas	Mast arm mounting vehicle signal faces, side attachment
MAS-4A	mas-4A	Mast arm mounting vehicle signal faces, side attachment - 4 signal section
MAS-4B	mas-4B	Mast arm mounting vehicle signal faces, side attachment - 4 signal section
MAS-4C	mas-4C	Mast arm mounting vehicle signal faces, side attachment - 4 signal section
MAS-5A	mas-5A	Mast arm mounting vehicle signal faces, side attachment - 5 signal section
MAS-5B	mas-5B	Mast arm mounting vehicle signal faces, side attachment - 5 signal section
MC	mc	Mercury contactor
M/M	m/m	Multiple to multiple transformer
MT	mt	Conduit with pull wire or rope only
MTG	mtg	Mounting
N	N	Mercury vapor lighting fixture
NC	NC	Neutral (Grounded Conductor)
NO	NO	Normally closed
PB	pb	Normally open
PEC	pec	Pull box
PEC	pec	Photoelectric control (Type I, II, III, IV or V as shown)
PED	ped	Pedestrian
PEU	peu	Photoelectric unit
PPB	ppb	Pedestrian push button
RL	rl	Relocated equipment
RM	rm	Ramp metering
SB	sb	Slip base
SIC	sic	Signal interconnect cable
SIG	sig	Signal
SMA	sma	Signal mast arm
SNS	sns	Street name sign
SP	sp	Service point
TDC	tdc	Telephone demarcation cabinet
TMS	tms	Traffic monitoring station
TOS	tos	Traffic Operations System
VEH	veh	Vehicle
XFMR	xfmr	Transformer
COMM	comm	Communication
RWIS	rwis	Roadway weather information system

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SCI	85	0.3	23	25

*Jeffery G. McRae*  
REGISTERED ELECTRICAL ENGINEER

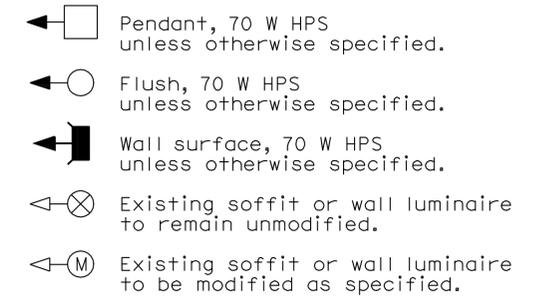
October 5, 2007  
PLANS APPROVAL DATE

Jeffery G. McRae  
No. E14512  
Exp. 6-30-08  
ELECTRICAL  
STATE OF CALIFORNIA

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To accompany plans dated 11-7-11

## SOFFIT AND WALL MOUNTED LUMINAIRES



**NOTE:**  
Arrow indicates "street side" of luminaire.

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

### ELECTRICAL SYSTEMS (SYMBOLS AND ABBREVIATIONS)

NO SCALE

RSP ES-1A DATED OCTOBER 5, 2007 SUPERSEDES STANDARD PLAN ES-1A DATED MAY 1, 2006 - PAGE 400 OF THE STANDARD PLANS BOOK DATED MAY 2006.

**REVISED STANDARD PLAN RSP ES-1A**

2006 REVISED STANDARD PLAN RSP ES-1A

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SCI	85	0.3	24	25

*Jeffrey G. McRae*  
 REGISTERED ELECTRICAL ENGINEER  
 October 5, 2007  
 PLANS APPROVAL DATE  
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To accompany plans dated 11-7-11

### CONDUIT

PROPOSED	EXISTING	
---	---	Lighting Conduit, unless otherwise indicated or noted
---	---	Traffic signal conduit
-C-	-c-	Communication conduit
-T-	-t-	Telephone conduit
-F-	-f-	Fire alarm conduit
-FO-	-fo-	Fiber optic conduit
---	---	Conduit termination
		Conduit riser in/on structure or service pole

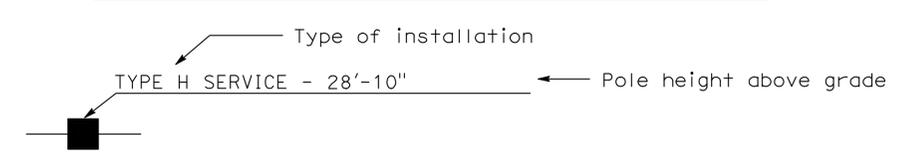
### SIGNAL EQUIPMENT

PROPOSED	EXISTING	
		Pedestrian signal face
		Pedestrian push button post
		Pedestrian barricade
		Vehicle signal face (with backplate, 3-Section: red, yellow and green)
		Vehicle signal face with angle visors
		Modifications of basic symbols: "L" indicates all non-arrow sections louvered "LG" indicates louvered green section only "PV" indicates 12" programmed visibility sections "8" indicates all 8" sections (only when specified)
		Type 15TS and Vehicle signal face
		Vehicle signal face with red, yellow and green left arrow sections
		Vehicle signal face with red and yellow sections and up green arrow
		Vehicle signal face (5 Section) with red, yellow and green sections and yellow and green right arrows
		Type 1 Standard and attached vehicle signal faces
		Standard with signal mast arm only and attached vehicle signal faces and internally illuminated street name sign
		Type 33 Standard, Left-turn vehicle signal face and sign
		Standard with luminaire and signal mast arms and attached vehicle signal faces
		Cantilever flashing beacon, Type 9 Frame, with a sign unless otherwise specified or indicated
		Type 15-FBS Standard with two vehicle signal face sections with lens, backplate and visor with a sign
		Flashing beacon. One vehicle signal face section with lens, backplate and visor. "R" indicates red indication, "Y" indicates yellow indication
		Controller assembly. Door indicates front of cabinet

### SERVICE EQUIPMENT

PROPOSED	EXISTING	
---OH---	---oh---	Overhead lines
		Wood pole "U" indicates utility owned
		Pole guy with anchor
		Utility transformer - ground mounted
		Service equipment enclosure type
		Service equipment enclosure door indicates front of enclosure
		Telephone demarcation cabinet

### POLE-MOUNTED SERVICE DESIGNATION



### ILLUMINATED OVERHEAD SIGN

PROPOSED	EXISTING	
		Overhead sign - Single post
		Overhead sign - Two post
		Overhead sign - Mounted on structure
		Overhead sign with electrolier

### SIGNAL EQUIPMENT Cont

PROPOSED	EXISTING	
		Guard post
		Type 1 Standard with "Meter On" sign
		Emergency Vehicle detector

### NOTES:

- All signal sections shall be 12" unless shown otherwise.
- Signal heads shall be provided with backplates unless shown otherwise.
- Signal indication shall be LED.

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION  
**ELECTRICAL SYSTEMS  
 (SYMBOLS AND ABBREVIATIONS)**  
 NO SCALE

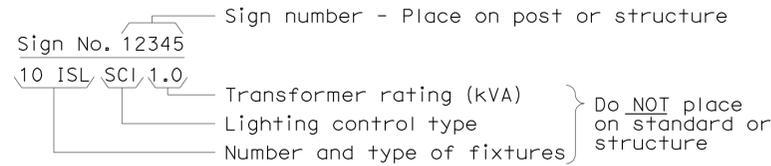
RSP ES-1B DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-1B  
 DATED MAY 1, 2006 - PAGE 401 OF THE STANDARD PLANS BOOK DATED MAY 2006.

**REVISED STANDARD PLAN RSP ES-1B**

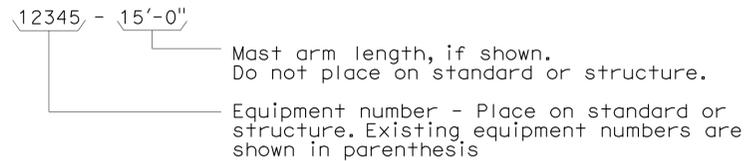
2006 REVISED STANDARD PLAN RSP ES-1B

### EQUIPMENT IDENTIFICATION

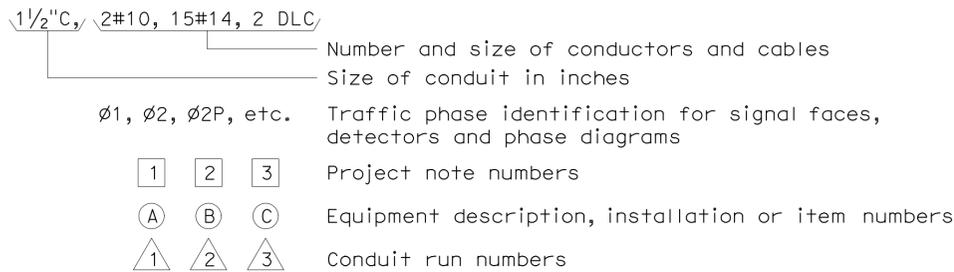
#### ILLUMINATED SIGN IDENTIFICATION NUMBER:



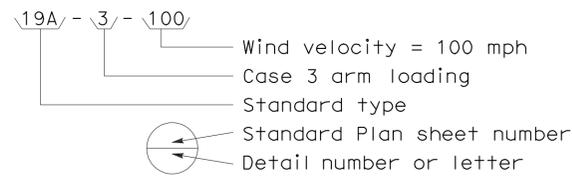
#### ELECTROLIER OR EQUIPMENT IDENTIFICATION NUMBER:



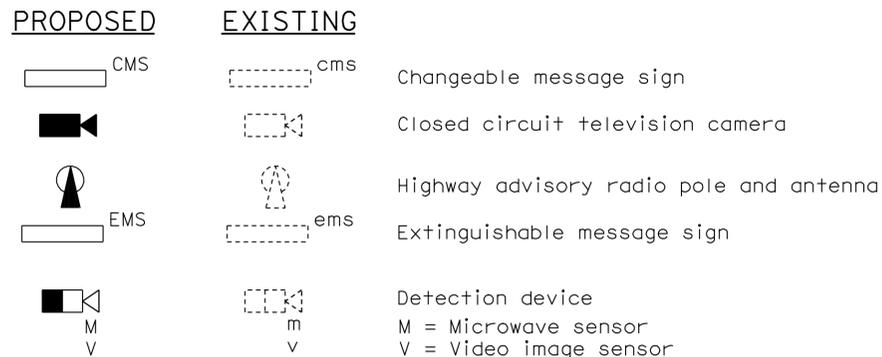
#### CONDUIT AND CONDUCTOR IDENTIFICATION:



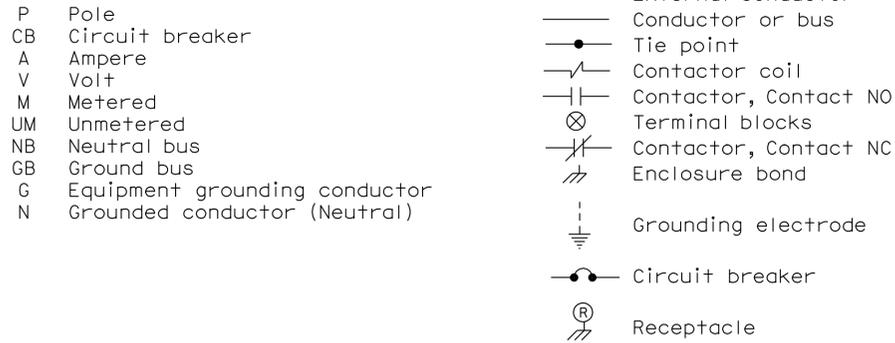
#### SIGNAL AND LIGHTING STANDARD (TYPICAL DESIGNATION):



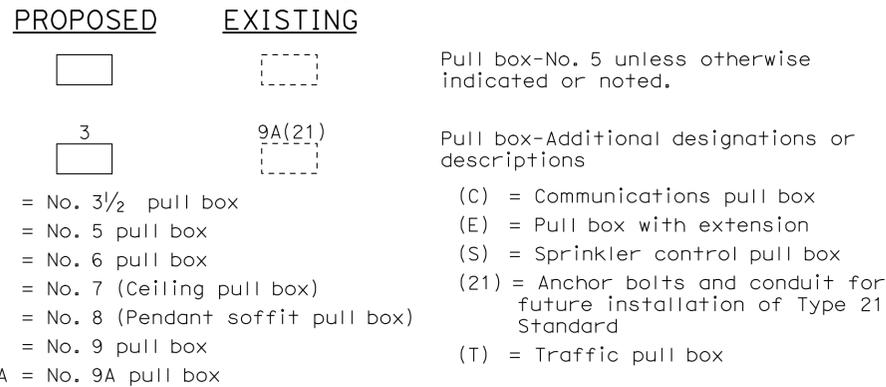
### MISCELLANEOUS EQUIPMENT



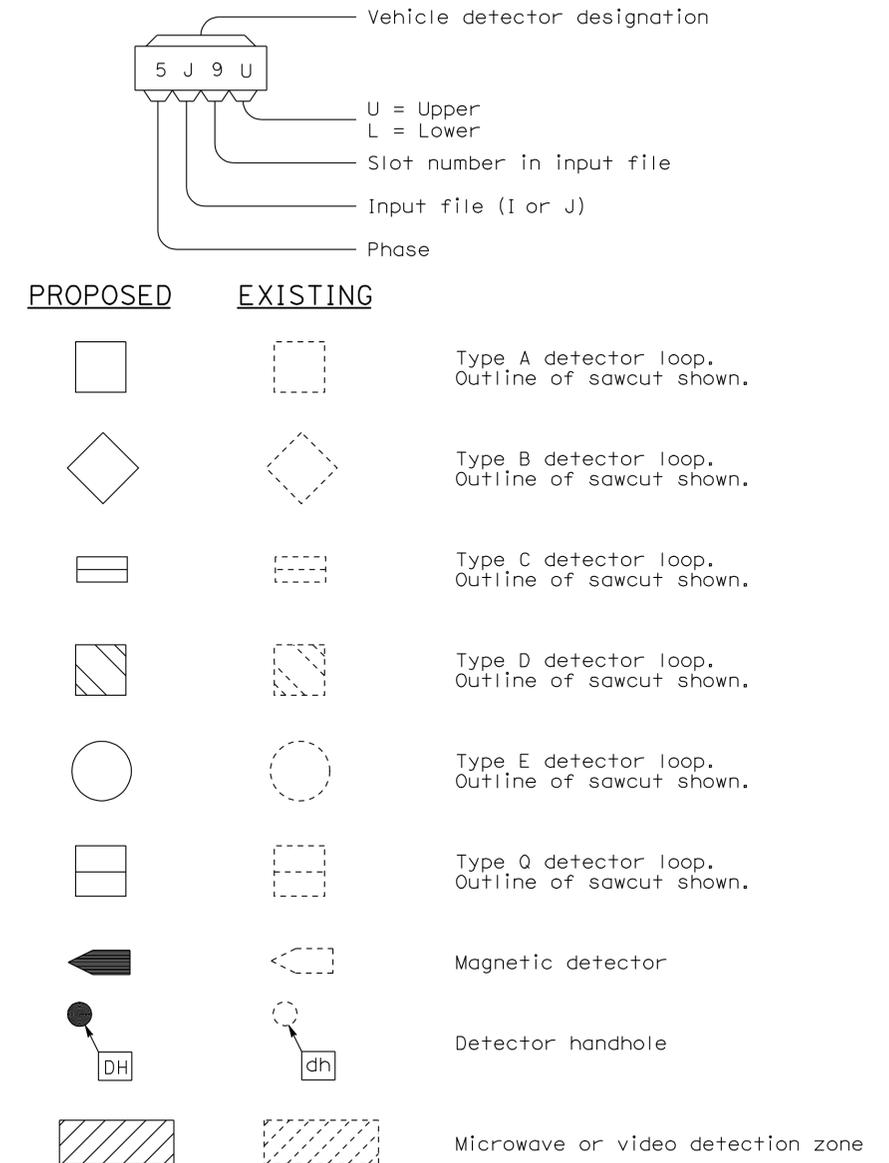
### WIRING DIAGRAM LEGEND



### PULL BOXES



### VEHICLE DETECTORS



STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION

## ELECTRICAL SYSTEMS (SYMBOLS AND ABBREVIATIONS)

NO SCALE

RSP ES-1C DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-1C  
 DATED MAY 1, 2006 - PAGE 402 OF THE STANDARD PLANS BOOK DATED MAY 2006.

2006 REVISED STANDARD PLAN RSP ES-1C